Project to Create and Support Regional Core Enterprises in FY2017
(sponsored by the Ministry of Economy, Trade and Industry)

Venture Seeds Collection

Infinite Possibility Spreading Worldwide !

Venture Technologies Launched in Kyushu

March, 2018
Kyushu Bureau of Economy, Trade and Industry

Consigned to and implemented by:
Kyushu Industrial Advancement Center
Kyushu Semiconductor & Electronics Technology Innovation Association

Introduction

～Selection of 70 Venture Seeds～

With the acceleration of innovation in IoT, automated operation, and other areas, the global semiconductor market has grown at a rate exceeding 15% per annum due to increased demand mainly in the memory fields such as D-RAM and NAND. The Kyushu region is also thriving mainly in CMOS and other sensors and power semiconductors, and the IC production results in 2016 were positive for the fourth consecutive year despite the impact of the Kumamoto Earthquake-induced suspension of production and other factors.

At the same time, in order for the semiconductor-related industry in Kyushu to achieve sustainable growth at a time of a major change in the industry called the 4th Industrial Revolution, it is important not only to manufacture hardware such as semiconductors, devices, and production facilities, but also to work on breakthroughs through the creation of new systems and services that make use of them.

In order to realize these changes, it is necessary to seek to collaborate with new players, such as venture companies, without being bound by existing values and business frameworks.

Japan's annual venture capital investment was ¥130,200,000,000 in fiscal 2015. In fiscal 2016, it was ¥152,900,000,000, an increase of 17.4% over the previous year. As a result, open innovation in cooperation with venture companies, particularly large enterprises, has accelerated, and a number of innovative initiatives by venture companies have emerged in the Kyushu region.

In light of the above, we investigated the efforts of venture companies in Kyushu and selected 70 seeds with high potential for application to the semiconductor-related industry, and compiled them as pamphlets.

I hope this seed book will serve as a catalyst for the formation of alliances and the creation of new businesses between semiconductor-related companies and venture companies, and in turn will lead to the creation of a new innovation ecosystem that will lead to the next generation.

Information Policy Division, Economic Policy Division, Kyushu Bureau of Economy, Trade and Industry
Consigned to and implemented by:
Kyushu Industrial Advancement Center
Kyushu Semiconductor & Electronics Technology Innovation Association

About the Preparation Method and Positioning of the Seeds Collection

○This section has been compiled as a commissioned project commissioned by the Ministry of Economy, Trade and Industry, Project to Create and Support Regional Core Enterprises in FY2017.
Consignee: Kyushu Industrial Advancement Center
Contracted agency: Yano Research Institute Ltd.

○The technical seeds and products of the listed companies are prepared based on the materials provided and hearings from each company, and the Kyushu Bureau of Economy, Trade and Industry does not guarantee the effectiveness of the technology.

○In this section, we select and publish not only so-called start-ups, but also advanced products, technologies, and business models as venture seeds, including the development of new fields by existing companies and the establishment of second-time businesses.

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Medical・Health care・Biotechnology

Kyushu Venture Sees No.

Environment・Energy

Kyushu Venture Sees No.

Monodzukuri(Manufacturing)・Material

Kyushu Venture Sees No.

Robot・Space・Mobility

Kyushu Venture Sees No.

Agriculture, forestry and fisheries・Food

Kyushu Venture Sees No.

Other(Products / Services)

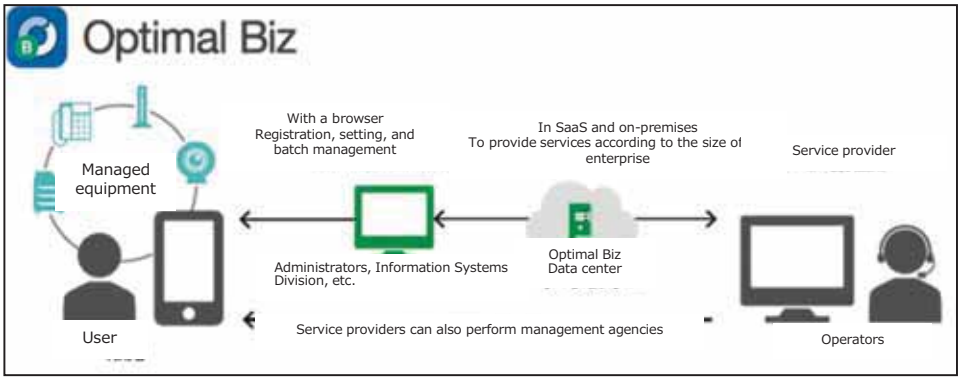
Kyushu Venture Sees No.

OPTiM Corporation

Turn the Internet into air
MDM domestic market share No. 1 "Optimal Biz"

IoT platform services

"Optimal Biz" is a service that enables you to manage a wide range of networking devices, such as smartphones, tablets, and personal computers, from the cloud, including the Internet of the IoT business, and to easily perform the required security measures and settings. It is rated No 1 in the field of MDM (Mobile Device Management) service from several prominent research companies.In addition, it supports more than 500 multi-device models and supports a wide range of environments and use cases. Since we are developing in Japan, our support is safe, and we offer a rich range of functions required by Japanese companies. As the number of licenses continues to increase steadily, the number of optional services such as security services continues to grow steadily.
In addition, with our business alliance with device terminal makers, we can verify the actual devices of the latest devices before general release.
We are outstanding at the compatibility of the spread of compatible terminals and the speed of correspondence of the latest terminals, which are essential conditions for MDM study. East Japan Railway Company, East Japan Railway Company, Kansai University Primary Division, SYSKEN, FLENS Corporation,Sendai Seongnam High School etc.



Two-way communication diagram using Optimal Biz

Management strategy / Vision

●Background

The company is founded by representative Sugaya while studying at Saga University. We provide the service group complementing the lack of Internet vulnerability and lack of convenience by the power of technology under the concept of existing existence without being conscious at all without being conscious even if there is no IT literacy called "change the Internet to air". After that, under the strong feeling "to win the de facto standard of the world", we are listed on the First Section of the Tokyo Stock Exchange in 2015.

Sugaya, our representative, has a large patent asset scale, and no one who will catch up with the Japanese in the future will appear.

We are also raising the voice. The current company name "Optim" is already considered in his high school era, and it is a coined word combining optimization = optimization and optimismism = optimism and putting our dreams.

●Future business development

· We are developing an AI · IoT solution specialized in the industry in the future and are promoting demonstration experiments at various sites.

· We are also keenly engaged in activities to establish a joint venture with leading industry partners, and by strengthening our investment in IoT / AI / Robot, we will become the center of the fourth industrial revolution I aim to aim.

· We will combine our technologies with all industries including agriculture, construction and medical fields and create new industrial infrastructure with the power of IT.

■Corporate profile

Address Tokyo Head Office
〒105-0022
Shiodome Building 21F
1-2-20 Kaigan, Minato, Tokyo
URL https://www.optim.co.jp/
Query Website.

Number of employees : 152
Capital : 418 million yen
Year of foundation : 06/10/2000
Representative :
President Osamu Hashimoto

■Outline of business

License Sales and Maintenance Support Services (Optimal) Business (IoT Platform Services, Remote Management Services, Support Services, and Other Services)

■Patents on the product

Zone Management (U.S. Pat. No. 5,976,033)
Secure Shield (U.S. Pat. No. 5,714,560)

Environmental GIS Laboratory Co., Ltd.

Software that can simulate wind flow on a map

Predicting Environmental Wind Motion in "Airflow Analyst®"

Easy simulation of wind using 3D map data

Our living environment is affected by wind flow. Various challenges are closely related to wind flow, including improving urban climate, developing new energies, and risk management for fire and gas outflow risks. Airflow Analyst® is a software that can simulate invisible wind flow using general-purpose map data.

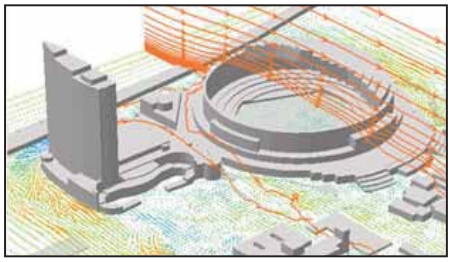
Advanced wind condition prediction by latest fluid analysis model

We adopted advanced LES model which can analyze complex wind flowing in 3 dimensional space. Since it can be analyzed in a short time with a general-purpose PC, it can be used in practice such as urban planning. It is extension software that runs on GIS software ArcGIS that is globally popular.

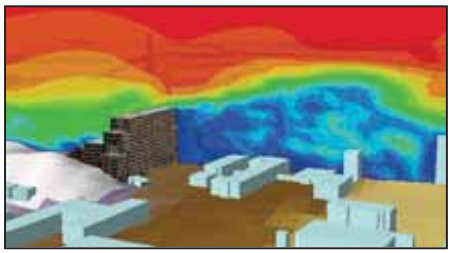
Cumbersome analysis procedure is unnecessary, it is possible to use it by the planning practitioner himself / herself Wind condition analysis software

Many wind condition analysis software requires knowledge of fluid dynamics for users, such as selection of analytical models and condition setting, in order to deal with analysis of various fluid phenomena such as industrial products. On the other hand, since Airflow Analyst specializes in wind analysis around the topography and the building, the user can analyze appropriately without knowledge of fluid analysis, compare and evaluate wind conditions of alternative plan, and make decisions based on it You can focus on

For more information, refer to HP. www.airflowanalyst.com



Visualization of wind flow around complex buildings



Applicable to predicting building winds and diffusing substances from factories

Management strategy / Vision

●Background

Using geographic information, quantitative analysis and visualization of GIS is an effective method for making all decisions and consensus building. The geographic information system is now developing together with the cloud and open data.
On the other hand, the movement of wind and air that changes depending on the city and natural topography is one of the factors that affect human activity, but only Airflow Analyst is integrated with GIS that can grasp it. Jack Dangermond, president of ESRI, which has the top share of GIS, received evaluation and support, and decided to sell Airflow Analyst in the world. It is our mission to use it as a problem solving tool.

●Future business deployment

We will continue and develop overseas sales not only in Japan but also in order to utilize them in urban environments and wind power development overseas.
We will enhance the documentation that introduces user examples of applications, thereby making it easier to imagine how to use them.
In addition, since business models are changing from "owned" to "used" in recent years, we will continue to respond to subscription models and build an easy-to-use environment.

■Corporate profile

Address 〒814-0001
#308 Fukuoka SRP Center Build.
2-1-22 Momochihama Sawara, Fukuoka
URL http://www.engisinc.com
Query TEL: 092-631-6406 or website.

Number of employees : 1
Capital :
8million 500thousand yen
Year of foundation : 2002
Representative :
President Ryo Araya

■Outline of business

・AIR ENVIRONMENT EVALUATION USING GIS AND CONSTRUCTION ANALYSIS OF ENVIRONMENT EVALUATION
・GIS system development
・GIS/CFD software sales

■Utility model for this product

Fluid analysis system

Kimura Information Technology Co., Ltd.

Eliminate the time for " search"
AI Query System "AI-Q"

AI-Q【アイキュー】

AI Query Systems using the IBM Watson Japanese version. If you ask your company's provisions and application methods, AI will respond at any time for 24 hours on behalf of the employee. In addition to the application for expenses and long-term vacation, we can take a wide range of measures such as product information, how to create quotes, and how to operate PCs.

Staff Advisory

**"Tell me how to apply for in-house.
I also want a format. "**

Operator assistance

**"You are asking for the internet connection method.
So first... "**

Product information Q & A

“What was the price of new product A?"

1. Rich preset data that can be used immediately

We started to offer "AI - Q from tomorrow" that allows you to use the system with learning data (Q & A), which is a problem in introducing AI, preset from the beginning.

2. All maintenance related to AI can be substituted.

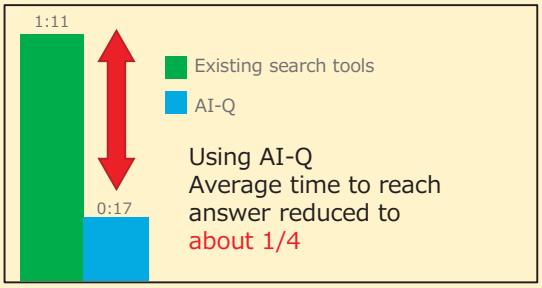
All necessary maintenance before and after the introduction of AI can be delegated by Kimura Information Technology.

3. Version upgrade・Extensibility

We are adding functions once every three months based on the opinions from users who introduced it.

明日からAI-Q

■Presetting data
Windows7　Windows10
IPhone7　IPhone8　iPhoneX
Human Resources・General Affairs・Accounting



●Future business deployment

We have built a system that can be used not only in-house use but also outside the company, such as recruitment. Regardless of the type of business, we can use it widely in companies such as the HR, General Affairs, and Information Systems Division.
AI-Q also provides office2016 and office365 pre-set data.

■Corporate profile

Address 〒849-0933
6-1,
Oroshihommachi,Saga,Saga
URL　https://www.k-idea.jp/
Query toi@k-idea.jp

Number of employees : 214
Capital :
24million 500thousand yen
Year of foundation : 2005
Representative :
Representative Director
Takao Kimura

■Outline of business

In April 2016 we started the artificial intelligence business as the first partner company of IBM Watson Japanese version. The system construction record was highly appreciated in February 2017 and received the IBM Choice Award "Top Strategic Business Partner - Japan" award.

Groovenauts, Inc.

Make human "thinking" more free. Machine learning that anyone can use.

MAGELLAN BLOCKS

You do not have to rely on experts anymore.

Everything you try to use in business is "expensive" and "difficult". Machine learning experts should not use machine learning, but those business professionals must be able to use machine learning. That's why MAGELLAN BLOCKS offers easy and reasonable prices so that anyone can feel free to use machine learning.

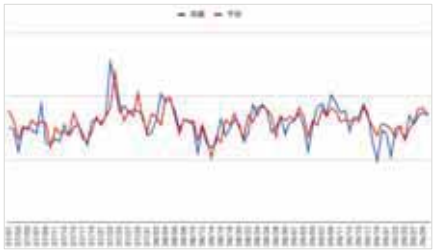
All necessary functions are available here.

In MAGELLAN BLOCKS, not only the machine learning block but also a block for completing a series of processes, such as a block for collecting and storing data to be analyzed and a block for outputting the result are prepared in advance. The flow design can be easily designed simply by connecting the blocks, in what order the data is processed and where the results are stored and outputted.

Used enterprises have a wonderful achievement.

Various companies have already begun to use themselves, and we are starting to achieve high results on our own. For example, prediction of the number of visitors, sales forecast, forecast of the number of incoming calls at the call center, stock price prediction, power saving effect prediction. Other industries and usages such as abnormality detection of thermal power plant, abnormality detection by aerial shooting, inspection of products are various. In this way, it is characterized by the fact that the user himself can obtain results by machine learning using AI, not the expert.

MAGELLAN BLOCKS image



※Demand forecast result image. Red is the predicted value. Blue is the actual value. It can be seen that the prediction is performed with high accuracy.

Management strategy / Vision

During a 30-day free trial!

MAGELLAN BLOCKS offers a free trial program for 30 days in order to make it easy to experience the actual force. Please try the MAGELLAN BLOCKS at this occasion. Refer to our web site for details.
https://www.magellanic-clouds.com/

OPEN AI LAB

A wide range of local companies, ranging from start-up to major companies, including Koyo, Financial Group and Grownotz Corporation, have learned about AI together, and have been established as a site for activating businesses utilizing AI and creating new businesses. In the future, we will support the use of AI in conjunction with cooperative organizations and companies.

■Basic information

MAGELLAN BLOCKS U R Lhttps:/www.magellanic-clouds.com/
Operation: Contact Goovnotz Inquiry from the website.

■Company profile

Address 〒810-0021
Imaizumi 1-19-22, Chuo Ward,
Fukuoka , Fukuoka
URL http://www.groovenauts.jp/
Query Website.

Number of employees : 36
Capital :
311million 750thousand yen
Year of foundation : 2011
Representative :
Founder & Chairman
Kumiko Sasaki
President & CEO Eihiro Saishu

■Outline of business

Software and services business
MAGELLAN BLOCKS services and consulting that can be easily used by anyone to learn IoT/big data/machines

TECH PARK business
Operation of the school nursing TECH PARK

Circle One Co., Ltd.

IP communicators connected anywhere throughout the country

First in Japan!! “Handy Cosmo Talk” to broadcast live video

Application features of handy cosmotalk services

With the coming retirement of technicians of the baby boom generation, the lack of industrial technicians will become a serious problem for every enterprise. Especially in the construction industry, with Tokyo Olympics 2020 approaching, there is an inevitable rush to complete construction.

This product can connect the on-site young technicians to the veterans through audio and video and help to resolve the technician shortage.

Technical features

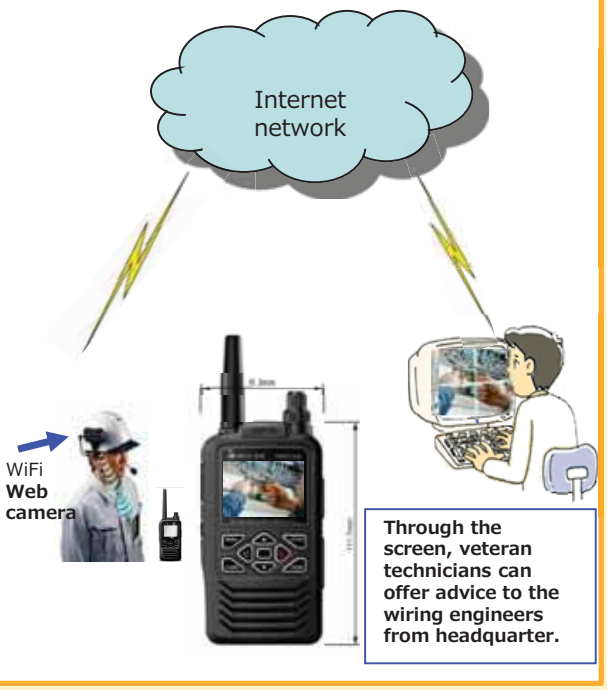
This IP communicator with a camera installed in the helmet, a bone-conduction speaker and a noise-canceling microphone enables clear calls even at a noisy construction site. Since both hands can be used, the young technicians can perform construction work while receiving advice from the veterans.

Novelty

・The idea of developing IP communicators comes from the common sense that we can talk through conventional radios. IP communicators can broadcast live videos anywhere in the world.

・The weak point of IP communication equipment is that without Internet access, a call cannot be made even at a distance of 1 m. For this reason, Dual SIM that can be connected to several communication carriers is used. (First in Japan)

First in Japan!! Web cameras can be connected to Handy IP communicators

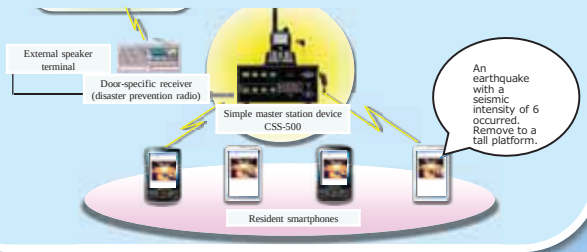


Management strategy / Vision

●Create the future by flashing

Create next-generation products with new ideas.

Many municipalities suffer from budget deficit in distributing disaster prevention radios to every household. We have developed an application that tailors people's smart phones to disaster prevention radios.



●Future business deployment

Applying IP communications technology to Smart Phones

◎ Noting that almost all the listed companies perform the safety confirmation system by sending e-mail, we are developing “BC Cast” system, which can confirm safety by mail and voice.

◎ Also, we are developing “SC cast” system, in which shops become broadcasting stations and send real-time advertisement with photographs to the customers.

◎ We are developing “Aporon” system to confirm the safety of elderly people and detect death of those who live alone.

■Corporate profile

Address 〒874-0016
860-1, Noda, Beppu-city, Oita
URL http://www.circleone.co.jp
Query TEL 0977-66-1648 or website

Number of employees : 7
Capital : 99 million yen
Year of foundation : 1986
Representative :
Representative Director
Toshio Ichimaru

■Outline of business

・Disaster prevention administrative radio parent station for local governments
・For local government disaster prevention broadcasting to residents' smuho
Familiar Cosmocast
・IP Communication Equipment Cosmotoke Co., Ltd.
・Elderly Apolon
・Remote surveillance camera Security Pro

Skydisc, Inc.

With IoT×AI,
Increase the value of your sleeping data

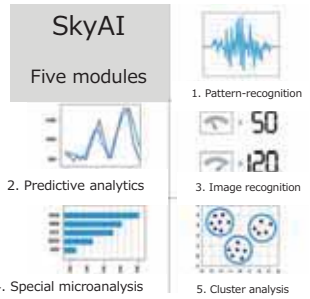
Development of readily available IoT sensor devices and cloud services, analysis with AI (artificial intelligence), and provision of AI services (machine failure prediction, etc.) for each field.

IoT one-stop services

For all the sensing, communication, visualization and analysis (AI) functions required for IoT, they are provided by one stop. Consistent development from device to service can reduce development costs and introduce diverse IoT solutions.

Sky AI

Sky AI is an AI (Artificial Intelligence) Analysis Service that is specialized for IoT time series data.
Five unique analysis modules (*right table) are optimally combined and provided for each case.



Sky AI

Effective work by introducing AI

1、Decision to rely on the experience of a skilled person (stethoscope, keystroke test)
2、Judging from the large amounts of data (data in the factory and DNA data)
3、Business that needs to correct human biases (medical diagnostics, Go chess manual)

Smart stethoscope

This is a service that uses the microphone function of a smartphone to record the sound of a bearing or gear, and to perform AI analysis on the recorded data to diagnose equipment abnormalities.

Smart stethoscope

Management strategy / Vision

●Background

The challenge starts with the problem of elderly people living alone faced by Hashimoto, representative of the company.We began developing a mechanism that can take care of these people. For customers who have similar problems, we established Skydisc company, making use of our data-analysis technology, which is Hashimoto's research field.
we want to develop a mechanism that can readily realize the goal of "caring", regardless of whether the target is human or non-human.
We believe that it is the mission of the Skydisc to solve our customers' problems by "converting non-data into data", and "analyzing the collected data properly".

●Future business deployment

In September 2017, we managed to raise additional funds of 740,000,000 YEN and plan to establish bases in Tokyo and Vietnam. In terms of business, we will expand our services for manufacturing industries, in which SkyAI is being used. (To be specific, we will promote cooperation with diverse partners, such as concluding basic agreements with AJS on the provision of AI/IoT services for integrated chemistry-related industries and collaborating with companies offering MES Solutions for manufacturing industries.) We are looking into the future and endeavoring to provide further AI/IoT services.

■Corporate profile

Address 〒810-0041
FUKUOKA growth next #2F 217 2-6-11,
Daimiyo, Chuoku, Fukuoka-city, Fukuoka
U R L http://skydisc.jp
Query TEL 092-738-1331
FAX 092-738-1332 or Website

Number of employees : 25
Capital : 867 million yen
Year of foundation : 2013
Representative :
President
Osamu Hashimoto

■Outline of business

We propose to increase the value and efficiency of manufacturing and infrastructure industries using IoT/AI technology, and propose, build, and introduce IoT systems.

HIBIKINO DENSHI Co.,Ltd.

We aim to commercialize using excellent sensing technology of Kyushu Institute of Technology

"Biosensor" capable of human body detection without contact

Product application features

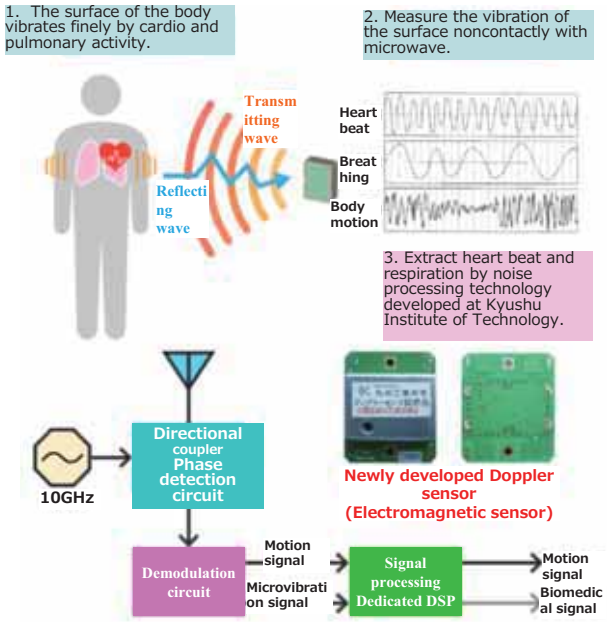
In recent years, the declining birthrate and aging of society is being a social problem. A system for managing health risks at the individual level is required to secure the quality of life and suppress medical costs

Features of the technology that supports products

The demodulation circuit demodulates the signal by dividing it into a motion signal and a fine vibration signal based on the phase and amplitude changes. From this signal, the signal processing unit uses a noise processing LSI developed by Kyushu Institute of Technology to reduce noise such as environmental noise, and outputs a signal centered on motion and a biological signal centered on heartbeat and respiration. Noise processing LSIs have also acquired international patents using orthogonal transformation.

Novelty

New radio-wave biometric sensors can be used to detect heart rate and body motion biometric signals in a non-contact manner.



Biosensors

Management strategy / Vision

●Background

We aim to create a new business in Kyushu by collaborating with industry, government, and academic communities to utilize the intellectual resources of Kyushu regions possessed by universities and public research institutions. With the cooperation of Professor Sato of Kyushu Institute of Technology, we will develop new sensing related technology and obtain patents and commercialize it based on intellectual property.

●Future business deployment

We will develop sensor products and sensor devices using the intellectual property of noise removal technology and sensing technology owned by Kyushu Institute of Technology, and develop and sell sensor products and sensor devices to the security, automotive, sanitary, medical care, consumer, industrial equipment, OA, FA, and robotic markets.

■Corporate profile

Address 〒808-0138
1-3 #303, Hibikinokita, Wakamatsu-ku, KitaKyushu-, Fukuoka
URL http://hibikinodenshi.co.jp/
T E L 093-695-6150
MAIL info@hibikinodenshi.co.jp
※Please make an inquiry by mail.

Number of employees : 6
Capital : 10 million yen
Year of foundation : 2016
Representative :
CEO Suguru Horinouchi

■Outline of business

・Actualization of results (technology) in START project
・Driver monitoring during automatic operation Business
・IOT, monitoring system business (Health management in a daily life)

Fusiontech Co., Ltd.

Consulting +IoT Solution to Innovate "Manufacturing"!

IoT Hub A-Sight, visualizing Manufacturers' 5M

Features of the IoT Hubs A-Sight

A-Sight, a relay station that connects mono and cloud computers, enables easy and inexpensive collection of a variety of data by connecting sensors and facilities.

- Compliance with a wide variety of inputs and outputs (simple connection of modular connector system)
  RS485×1、I2C×1、Digital×4、Analog×4
- Built-in Ethernet LAN
- Wireless communication support (optional)
  3G, LTE, WiFi, BLE, LPWA, etc.
- Get Position Information (Optional)
  GPS, sniffing (scheduled to respond to 2018)
- Be compatible with all sensors

IoT Technology Consultants Not in Other Companies

In order to maximize the effectiveness of the use of IoT equipment, it is important to clarify the problems for each customer and design a system that is optimal and reasonable. To clarify cost-effectiveness, we investigate and analyze customer production lines on site.

Management strategy / Vision

●Background

Our company was launched as a university venture by professors of Information and Technology Department, Kumamoto University. This is a R&D oriented company that works with local companies and governments to deliver "Made in KUMAMOTO" to the world.

●Novelty and uniqueness

The first step in manufacturing activities, such as improving productivity and quality, is field analysis through visualization. It is possible to provide a one-top plant improvement system through console improvement and IoT/ICT development, and it is possible to provide a reasonable system that meets the needs of the site.

●Future business deployment

In cooperation with local IT companies, we are developing manufacturing solutions to realize smart factories based on Industry 4.0. Especially, as a preliminary stage of system design, we will open up a consultant division that can provide a system optimized for each customer after visiting the customers' manufacturing lines and clarifying the problems.
In addition, we will develop a position information utilization solution that uses proprietary GPS and sniffing modules.

■Corporate profile

Address 〒860-0812
208, Incubator with Kumamoto University Cooperation, 3-14-3,Minamikumamoto, Chuo,Kumamoto
URL http://www.fusiontech.co.jp
Query TEL 096-342-4449

Number of employees : 6
Capital : 3 million yen
Year of foundation : 2013
Representative :
CEO KIM Su Young

■Outline of business

・IoT Introduction Consult
・ICT introduction consult (analysis of muddy, etc.)
・Development and sale of IoT equipment (various visualizations)
・Development and sale of location management systems
・Development of care equipment (easy-to-stand chairs, etc.)
Other

MechaTracks Co., Ltd.

Your prototype is a product.

Prototyping~Product-incorporable Raspberry Pi Peripherals and Small Lot Manufacturing

Raspberry Pi(Raspberry Pi) has been developed as an inexpensive PC board for educational use, but demand has been rapidly increased in prototyping and small-lot manufacturing in the IoT field, etc., and the total number of shipments worldwide exceeds 10,000,000, and shipments are now increasing by 40% annually. We have shipped the largest domestic class of peripheral equipment to use this Raspberry Pi for business, and offer it to large-to-small domestic companies, universities and other research institutions.

Raspberry Pi, although having a high price performance ratio, was hardly adopted in business applications at the outset of sales because of concerns about reliability and the like. By devising a circuit configuration and a built-in SD card, we have for the first time in Japan realized the commercialization of peripheral devices that can stably operate Raspberry Pi for business use, and have been adopted for various devices such as agricultural IoT and photovoltaic power generation equipment. As a result, we have been recognized in Japan as a leading company with abundant know-how in the field, and in recent years, we have developed products and the like that are unusual in the world.

The price of Raspberry Pi is less than 5000 yen, and is less than 1/10 of the price of the business equipment of the same specification. On the other hand, more than this cost advantage, Raspberry Pi , which has a huge number of users around the world, can shorten the development time by referring to a wealth of cases, and brings about an overwhelming competitiveness in research and development fields such as IoT in which trial and error occurs.

Raspberry Pi Communication Modules "3GPi"

A/D Converter Modules for Raspberry Pi "ADPi"

Management strategy / Vision

●Background

In 2005, the company was established to develop and commercialize robotic equipment at the Yokogawa Hama in Fukuoka City. “Mecha”, derived from “mechanical”, refers to machines. “Tracks“, derived from ”hundreds of roads“, the birthplace of the company (where people‘s ”footprints” cross each other around tidal flats), indicates our wish to leave a footprint in the mechanical and electronic engineering fields.

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●Future business deployment

Prototyping using inexpensive off-the-shelf products is extremely effective in IoT, where it is difficult to prepare firm specifications or the like in advance and trial and error in the field is essential. In addition, there are a wide range of technical areas required for IoT, such as sensor, communication, cloud, and AI, and it is difficult to cover all of them by one company. As a professional manufacturer of prototyping hardware that is effective for IoT, we want to actively develop collaborations with a variety of companies.

■Corporate profile

Address 〒814-0001
Fukuoka System LSI Center #611,
3-8-33 Momochihama, Sawara-Ku,
Fukuoka,Fukuoka
URL https://mechatrax.com/
Query website.

Number of employees :
Not disclosed
Capital : 16 million yen
Year of foundation : 2005
Representative :
CEO Soichi Nagasato

■Outline of business

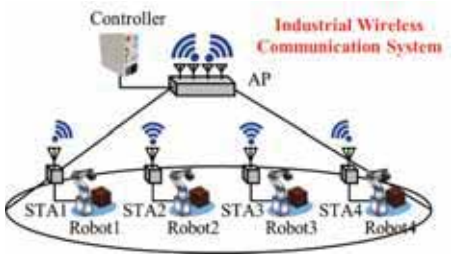
Development of Raspberry Pi Peripheral Equipment for Business Use
Production of small lots using them
Development of Electronic Equipment

Radrix Co. Ltd

Wireless industrial robots with ultra-high-speed wireless control!
"Industrial Wireless LAN System" for Wireless Industrial Ethernet

Product application features

The world market of industrial networks is growing rapidly, and in this field Japanese industrial products also face fierce international competition. In order to improve productivity, it is essential to cope with the shortening of the product life cycle, and improve the flexibility of production line reconfiguration. Under this background, the need for wireless industrial Ethernet is increasing.



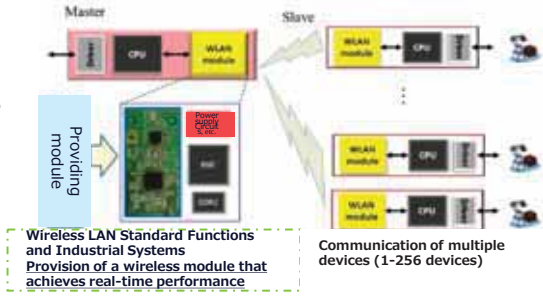
Industrial wireless LAN system (system configuration)

Features of the technology that supports products

Industrial wireless LAN systems that have been jointly researched and developed with Kyushu Institute of Technology are designed on the basis of a system compatible with the wireless LAN IEEE802.11, and realize very high-speed periodic communication (100 [μs] or less per terminal) and low-delay time synchronization (1 [μs] or less) using proprietary PTP.

Novelty compared with other companies' technologies

In the field of industrial Ethernet, there is no technology in the market for realizing wireless communication of Class C products that require periodic communication of 1 [ms] or less, and this technology is the highest level of its kind in the industry.



Wireless module currently under development

Management strategy / Vision

●Background

Raidrix Co., Ltd. has been launched as a university venture, and is consistently strengthening the collaboration between industry, academia, and government. At present, in developing industrial wireless LAN systems, Kyushu Institute of Technology and Iokuka Research and Development Organization have been adopted by the strategic infrastructure technology enhancement project since fiscal 2016.
In fiscal 2017, we have also been one of participants in silicon valley course of innovation support program (Hiyaku Next Enterprise)for medium and small-sized companies, supported by Ministry of Economy, Trade and Industry.

●Future business deployment

We are participating in an industrial wireless LAN consortium that is promoted by Kyushu Institute of Technology.
Together with participating universities and companies, we are aiming to put industrial wireless LAN systems into practical use.

■Corporate profile

Address 〒820-8502
Kyushu Institute of Technology, Incubation Facilities, Kawazu 680-4, Iizuka, Fukuoka
URL http://www.radrix.com
Query Email:support@radrix.com

Number of employees : 6
Capital :
3million 150thousand yen
Year of foundation : 2005
Representative :
CEO Hiroshi Ochi

■Outline of business

Design and development of digital wireless communication systems and IP development

■Patents on the product

Japanese Patent Application No. 2013-178280, Japanese Patent Application No. 2014-2461, and Japanese Patent Application No. 2016-12451
See HP for more information.

LOGICAL PRODUCT Co., Ltd.

Contributing to the security and safety of social infrastructure through IoT and wireless technologies

High-precision wireless measurement system (3-axis acceleration sensor, 6-axis IMU)

Application features of high-precision wireless measurement system

In response to an increase in natural disasters, this system is used to verify the seismic performance of social infrastructures and buildings to ensure safety and prevent damage caused by equipment failure.
・Optimum for analysis and diagnosis of deterioration and damage of large buildings (3-axis acceleration sensor)
・Preventive maintenance of equipment with drives (6-axis IMU)
・Motion Quantization (6-axis IMU)

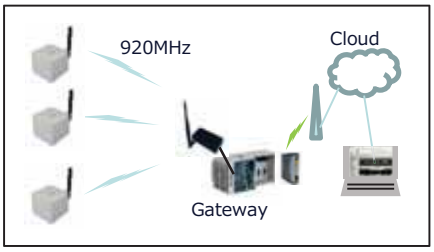
High-precision wireless measurement system
3-axis acceleration sensor (left), 6-axis IMU (right)

Features of technologies that support high-precision wireless measurement system

・The highest level sensors in the world with low-noise and high-resolution acceleration are installed:
Resolution 0.06 μG/LSB (3-axis acceleration sensor)
・Wide Area Covers over 500 m: Stable Measurement by 920 MHz Radio
(* Communication Distance changes depending on the surrounding environment)

Novelty compared with other companies' technologies

・Installation is possible without troublesome cable routing.
・Synchronous measurement of multiple sensors is possible by wireless communication using proprietary protocols.



With a high-precision wireless measurement system
Remote surveillance image

Management strategy / Vision

●Background

This is a R & D-type "Information & Communications Manufacturer" that aims to contribute to various industries in order to realize a safe, comfortable, healthy, and rich society with its proprietary "wireless + sensor" technology. The wireless sensor technology that contributes to the realization of the IoT society is aiming to expand business from Fukuoka to nationwide and worldwide.

Other products: small wireless sensors
・Small nine-axis wireless motion sensor
・Wireless strain gauge logger
・Wireless electromyography sensors, etc.

●Future business deployment

Customization in accordance with various applications is strong.
We want to cooperate with system companies that are strong in their own fields.
Customers:
・Housing manufacturers, construction companies, automobile manufacturers,
Railway companies, robot manufacturers, universities, Research institutions (disaster prevention, sports, etc.)
Application Fields:
・Construction
・Automobiles, railways, robots, and machinery
・Agricultural, sports and rehabilitation

■Corporate profile

Address 〒811-1314
Nakahara-building2F, 2-25-5,
Matoba, Minamiku, Fukuoka,Fukuoka
URL http://www.lp-d.co.jp
Query TEL 092-405-7603 or Website.

Number of employees : 25
Capital : 30 million yen
Year of foundation : 1994
Representative :
President Takunori Tsuji

■Outline of business

Development and sale of wireless sensor products, wireless technologies, hardware development, software development, mechanical design, cooperative design and development
Owing to certification to ISO 9001
The Ministry of Economy, Trade and Industry, a local future leader,
[300 small and medium-sized companies]

Y's Reading Co., Ltd.

Support sentence creation with an inference function using artificial intelligence

"Y'sCHAIN", AI-equipped text creation supporting system

Support the creation of various sentences

The Y' sCHAIN has been developed on the assumption that it will be used in the medical field (radiographic imaging) to prepare a large number of diagnostics documents.
By changing data that allows artificial intelligence to learn, we can support text creation tasks in various fields such as financial, administrative, and architectural fields.

Simple input to connect the recommended statements to AI

Analyze the sentence during the input operation and present the best sentence to write next in real time. Click to connect the sentences to complete the sentence.

As judicious and easy to use

The Y' sCHAIN has a learning function. It will not only learn new sentences by analyzing newly entered sentences and storing them in a database, but also improve the accuracy of recommended sentences.

Standardization of descriptions by natural language analysis engine

An AI-based analysis engine understands fluctuations of expressions and similar sentences and standardizes sentence presentation. As a result, the sentences can be formed with unity.

Management strategy / Vision

●Background

Radiologist working as representative, our company is particularly strong in the medical field. In addition, we have established an artificial intelligence laboratory in the company to promote the development of systems that utilize artificial intelligence technology.

The Y' sCHAIN has been commercialized by analyzing enormous amounts of data accumulated in the remote diagnostic imaging business using artificial intelligence technologies.

●Future business deployment

Natural language analysis technology is not limited to the medical field, but can improve the efficiency of the task of analyzing sentences in various fields and creating sentences. In addition, we are developing analytical technologies to improve the function of our business support system.

In the future, we intend to expand our business in various fields other than the medical field, and we want to cooperate with companies that have strengths in document management systems, business systems, and the like.

■Corporate profile

Address 〒861-5514
3-10-21Kita-ku, Hida,Kumamoto, Kumamoto
URL http://www.ysreading.co.jp
Query TEL: 096-342-7878 or Website.

Number of employees : 15
Capital :
20million 500thousand yen
Year of foundation : 2007
Representative :
Representative Director
Yoshiharu Nakayama

■Outline of business

Remote imaging support, regional medical collaboration support, radiology consulting, medical three-dimensional image analysis business, hospital information system consulting, and software development

■Patents on the product

U.S. Pat. No. 6,180,470

BOND Co., Ltd

Programs can be created in an easy, speedy and repeating way.

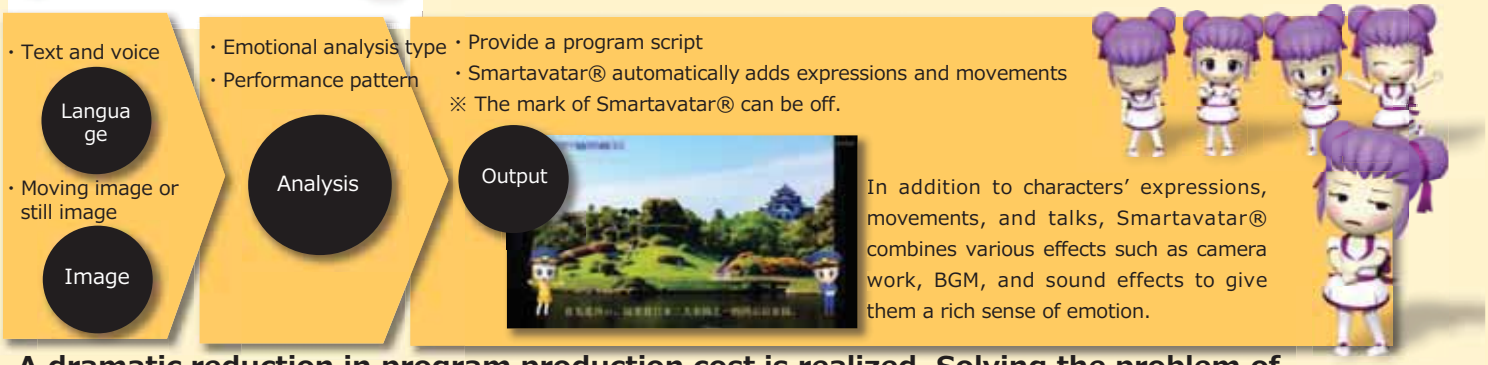
Movie-based communication IA_Smartavatar®

Enhancing the transmission power of moving images based on ICT × human emotion × Kawaii!

BOND has expected that people around the world video gathers on Internet and in the future have access to movie making such as advertising video. We are the only one in Japan so far to have developed the movie-based communication tool, i.e. "Artificial Intelligent Smartavatar® Series".

Smartavatar® Series analyzes human emotions from languages and images and merges them with comprehensive databases of performance, such as expressions and movements, so users can easily, quickly, and repeatedly create rich contents with rich emotional sensitivities without having to learn anything beforehand.
(Japan, Taiwan, Korea, China, U.S.
http://f-bond.co.jp/pdf/creator_v60.pdf?20171123202456

In cooperation with a variety of databases and AIs, it is a highly revolutionary and expansive product that can be created as an interface for communication that conveys emotional sensitivities in a rich manner.
https://www.rbbtoday.com/article/2013/07/31/110364.html



A dramatic reduction in program production cost is realized. Solving the problem of information distribution in multilanguage.

▼Price of the company's contract and the cost of purchasing the Smart Avatar Series

	3 to 100,000 yen Company-supplied materials	10 to 300,000 yen Half of the market price	Over 300,000 yen Made-to-order	purchasing BOND products Made-to-order: Initial 1,560,000 yen ·68,000 yen/month
Movie	One	One	One	If 100 movies are made, one for 23,780 yen in the first year and 8,160 yen from the second year on. If one thousand movies are made, one for 2,378 yen in the first year, and 816 yen since the second year.
Movie length	15 to 60 seconds	Consultation	Consultation	From one second to many hours
Editing, remaking	Not possible	Not possible	Not possible	Many times
Sending, delivering	Not included	Not included	Not included	Multiple terminals

Future business deployment

- Open the on-demand programming and distribution platform to the million people.
- Provided to local governments as information delivery tools for easy-to-understand movie to residents, including foreign people.
- Reforming large companies' information delivery tools such as employee education, IR information for shareholders, and FAQ to users.
- In cooperation with companies that have the latest information and a large amount of data, information is automatically programmed and distributed.

■Corporate profile
Address 〒803-0801
122-10 Nishi-minato, kokurakita-ku
Kitakyusyu, Fukuoka
URL http://f-bond.co.jp
Query TEL 093-561-5521 or
power@f-bond.co.jp

Number of employees : 6
Capital : 10 million yen
Year of foundation : 1950
Representative :
CEO Hiromi Furukawa

■Outline of business
The only domestic software manufacturer that develops proprietary AI and can easily and quickly create, distribute, and make voice calls to emotionally rich content from languages and images (e.g., print, CSV, and RSS data).

■Patents on the product
Simple video creation and interactive software. An emotion type library. Simultaneous delivery to multiple terminals.

Braveridge Co.,Ltd.

One-stop total support from planning and development of IoT devices centered on wireless communication technology to mass production!

Development and sale of wireless modules

・We propose the concept of a blank-module for Nordic Semiconductor Corporation (currently, 80% of the world share of BLE chips) and become the world standard for the concept of a blank-module.

Development, manufacture and sale of finished electronic equipment (OEM/ODM/ESM)

· Our IoT equipment Start-up company support and consigned design / manufacturing market share is 50% or more

· Supported device development support at Fukuoka City LoRaWAN ™

· Consultation such as ESM etc. partial consignment of the following business, etc. We have accepted widely

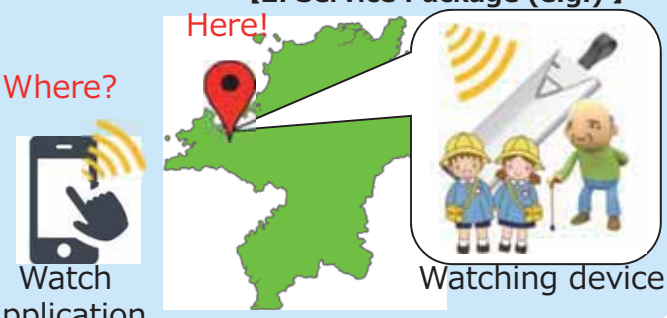
- Planning
- Architectural design
- Circuit design, Electrical prototype, Evaluation
- Mechanical design, mold design, molding, packaging
- MCU firmware · Application SW development
- Manufacturing, production technology
- In-house purchasing (domestic and overseas)
- FBB (warehouse / delivery work)

Management strategy / Vision

① Adoption of suitable wireless standards, leading the development, mass production and popularization of more reliable and convenient IoT devices
② Provide service package that can be used for improving public services and improving administrative work efficiency

【1. Wireless Standards (e.g.)】

【2. Service Package (e.g.) 】



■Corporate profile

Address 〒819-0373
3-27-2,Susenji,Nishi-ku,Fukuoka, Fukuoka
URL http://www.braveridge.com
TEL 092-834-5789
E-mail info@braveridge.com

Number of employees : 71
Capital : 10 million yen
Year of foundation : 2006
Representative :
CEO Tsuyoshi Yoshida

■Outline of business

・Development and sale of wireless modules
・Development, manufacture, and sale of finished electronic equipment (including OEM/ODM/ESM)
・Public Service Package Provision

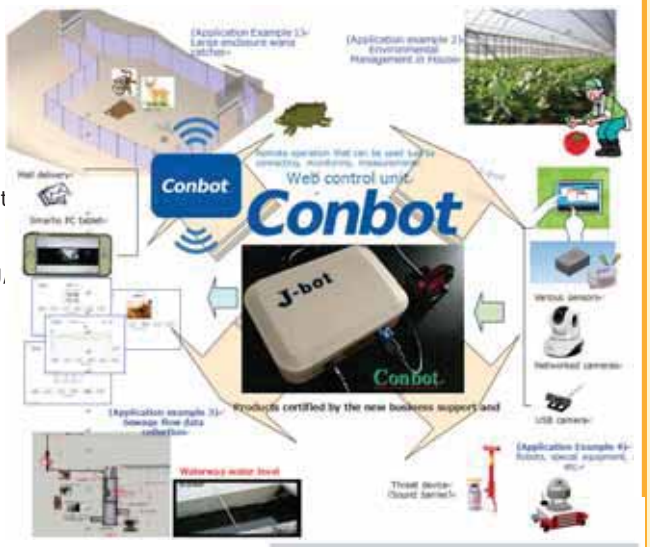
J-bot Co., Ltd.

Remote control system

Micro-control server unit "Conbot"

Application features of Conbot

Our unique design and parts procurement enable us to provide low cost products, which are easy to be introduced to small-scale farmers and the like. As an example of the applications, it is possible to remotely monitor and control a catching trap as countermeasures against bird's hazard, and it is also possible to apply it to various fields because it is excellent in the expandability of software. Further, since it is superior in power saving, the product can be used in a region where there is no power supply equipment and semi-permanently operated with solar batteries installed.
(Other Applications)
Equipment for countermeasures against bird's hazards, sewage measuring, environment monitoring in agriculture, and production equipment monitoring in factories.



Features of technologies that support products and services

In addition to remote control by wireless and web control technologies, we are able to develop manipulators by pursuing unique equipment and electronic design techniques.
Net support is possible in remote areas such as remote monitoring, remote control, and measurement control with small wireless servers.

Comparisons and novelty with other companies' technologies

The micro-control server unit developed by MHI is superior in external control of existing facilities by its own communication protocols, realizes long-distance transmission by using a function of switching between a master mode and a slave mode in combination with an unlicensed specified small-power radio module/WiFi, is more power saving than products of other companies, and can be operated by a battery-driven communication distance of about several km for 24 hours (many of the other products use 3G communication, the speed of long-distance communication is limited in remote areas and also consume a large number of electric power etc.). In addition, since the specific small power wireless module is inexpensive and has no line use fee, it can be realized at a lower cost in terms of installation cost and operation as compared with products of other companies.

A birds harmful large capture wana.

Management strategy / Vision

●Background
You cannot reach a place when it is faraway, dangerous or due to short of time, labor, and expertise. Our product can reach sky, mountain, underground and sea bottom and its application market is unlimited.
Therefore, it is important to produce products that can turn the PDCA.

●Future business deployment
In addition to small and medium-sized companies that want to improve the efficiency of their operations, agricultural, forestry and fishery industries, where aging is advancing, also demands to improve system efficiency and automation as a solution. We are considering the entry into such markets by reducing costs and realizing commercialization.

■Corporate profile

Address 〒869-4608
46,Miyaharaeikyuu,Yashirogun,
Hikawa-cho,Kumamoto
URL http://www.j-bot.co.jp
Query TEL or Website.

Number of employees : 3
Capital : 300thousand yen
Year of foundation : 2006
Representative :
President Yuichi Matsuoka

■Outline of business

●Automation of factories • production and installation of special equipment • design of security equipment

■ For this product

Products certified by the new business support and procurement system in Kumamoto Prefecture in fiscal 2011

Lafla Inc.

Compressive filtering system sCPM for IoT

Fast implementation of data filtering, alerting, aggregation and integration

Efficiency of complex IoT message processing!

This product efficiently implements filtering, aggregation, integration and alert processing of IoT data, which is becoming more complex year by year. Due to data compression and obfuscation, this product can efficiently and securely operate even for embedded devices that have low processing performance.

Ultra-high-speed engines allow search in a compressed state!

The core engine developed jointly with Kyushu University is installed to achieve overwhelming performance!
Because multiple IoT messages can be processed simultaneously, the performa is less degraded as more edge devices are added. Since IoT data is compressed 1/5 to 1/20 by a proprietary compression method, it is highly obfuscative and achieves high throughput even in a low-speed Internet line environment.

Advantages of compressed transmission technology

Since compressed data can be processed without resolving, and the speed of retrieval can be increased in proportion to the compression rate, the number of IoT GW installations can be reduced, the use of data on low-speed lines can be reduced, and the cost of communication can be reduced. In addition, because only necessary data can be easily obtained through a dedicated query, we can concentrate on application development and reduce the overall development cost.

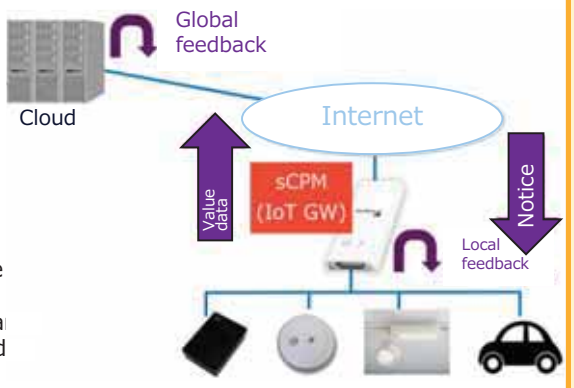


FIG. 1 : sCPM dataflow

※To the upper level by monitoring only necessary data
By uploading or by IoT GW alone
Reinforcing Real-Time Properties by Judging

Management strategy / Vision

●Background

In 2008, we started this venture with Kyushu University's unique technological seeds, such as search, text mining, and recommendations. For this reason, we have long been aware of how to efficiently process data in a computer environment with many restrictions, such as in the streaming search field. SCPM's search-engine cores have been utilizing the world-leading technologies in the field of streaming search, and we are working on developing products to offer their superiority.

●Future business deployment

Companies and other companies want to cooperate with each other.

Currently, we are developing demonstration applications for sCPM. This technology is suitable for a large number of IoT edge devices and environments that require high-frequency exchange of large amounts of data even when the wireless communication environment is poor, and is believed to be effective specifically in the fields of factories, construction sites, infrastructure monitoring, maintenance operations, drone, smart agriculture, and the like. We are looking for companies or demonstration partners to jointly develop systems that are suitable for sCPM.

■Corporate profile

Address 〒814-0001
Fukuoka System LSI Center #507, 3-8-33 Momochihama, Sawara-Ku, Fukuoka-City, Fukuoka
TEL 092-986-4662
URL http://www.lafla.co.jp
Query TEL or website.

Number of employees : 6
Capital : 4 million yen
Year of foundation : 2008
Representative :
Representative Director
Tatsunori Yumen

■Outline of business

DEVELOPMENT OF WEB SYSTEMS, DEVELOPMENT OF APPLICATIONS FOR SUMAFO, DEVELOPMENT OF ANALYSIS AND VISUALIZATION SOLUTIONS, INDUSTRIAL AND INDUSTRIAL

TechJIN Co., Ltd.

～Achieving All Marketing Requirements with All in one～

b→dash

A platform that realizes data marketing at any time, for anyone

【Public demand】
・Want to improve labor productivity

・Want to use big data for marketing.

Achieving data marketing is essential.

【Corporate issues】
・Data can not be used immediately because it is separated
・If you do not introduce various tools I can not realize what I want to do
・Operation is difficult and not easy to use
・There is no person with literacy and it can not be used

Data marketing Required item		Characteristics of b→ dash
" at any time " Can use data	**Data Integrity**	Since the construction and operation of DWH is carried out within the cost, **no additional cost / man hour** is generated.
"by One " Can use data	**Functioning Completeness**	Since one tool realizes OnetoOne Marketing, there is **no additional tool cost.**
"Anyone" Can use data	**Services Convenience**	There is **no additional consulting cost** due to the support system.

Management strategy / Vision

●Background
With diversification of devices by digital shift and popularization of SNS, companies have become able to acquire enormous data of consumers. However, integration, analysis, and combined utilization of big data across all marketing processes such as advertisement data, Web access log data, purchase data, and user data can not be practiced, and it has been a problem. Meanwhile TechJIN develops and provides the marketing platform "b → dash" as a marketing solution that realizes acquisition, integration, utilization and analysis of big data of all industries and business types on one platform, and it has been introduced to many companies is.

●Outlook
TechJIN, together with From Scratch Co., Ltd., is developing business based on "big data x artificial intelligence". We will accelerate the speed of developing new solutions in the field of marketing technology by using artificial intelligence technology in huge marketing data accumulated in "b → dash" from now on.

In addition, we plan to expand our business in various industrial fields and areas with the data integration technology, data high-speed processing technology and artificial intelligence technology as the source of competitiveness from now on

■Corporate profile

Address 〒814-0001
OsumiBuilding 5F,6F,7F ,Tenjin, Chuoku, Fukuoka, Fukuoka
TEL 092-406-8016
URL http://techjin.co.jp/
Query TEL or Website

Number of employees : 30
Capital : 30 million yen
Year of foundation : 2016
Representative :
President & CEO
Takuro Higashigata

■Outline of business

Development and provision of "b→dash" marketing platforms, support for introduction, service desks, development and research of artificial intelligence, basic research and development in the area of marketing technology, new business development and new functional development

Y･S･Y enterprises, Inc.

Nursing-care insurance · nursing care robot introduction support project application

Face authentication watching system HITOMI

Application characteristics of products / services

The number of dementia patients aged 65 or older is estimated to be 7 million in 2025. While there are reports that expenses such as personnel expenses for searching will be several million yen due to wandering notifications, We do not necessarily provide accurate information such as clothes and backpack at the time of going out, which is necessary for finding "and cases not reaching discovery are increasing.

HITOMI realizes "identification of individuals" which was difficult with sensors of the conventional type by face recognition, and does not react in the case where they go out with staff of the family or facility living together, either alone or to a third party. It is possible to select alerts only by sorting out cases going out one after the other.

By detecting the outing as soon as possible to alleviate the situation of "being out of touch" and detecting outings, instant send the recorded video at the time of detection and the movement prediction range to the pre-registered mail address you can receive mail, you can see the video at the time of goir out unnecessary for dedicated applications, settings, etc. It is possible to spread the same contents by e-mail transfer and SI etc. to those who were not registered at the time of detection

Also, after discovery, these personal information will be delete so there will be no information left on the smartphone or cell phone that received the notification, so you can easily and relia manage your personal information.

HITOMI

Wanderer early detection assistance system [Hitomi]

Recognition camera

Face registration camera (Movable)

Server

Management strategy / Vision

●Background
Started development from 2004 and started development of HITOMI based on the technology of "High-speed video conversion technology for multi-device" adopted also by Ministry of Land, Infrastructure and Transport.

●Novelty and Originality
By using "Face Recognition", it responds only to the "specific person" that was difficult in the past, extracts the recorded video at that time, "After all discovery that information can be browsed" Any system that prevents leakage of personal information Developed.

●Future business Development
We will continue to develop not only dementia but also hospitals / childcare facilities, especially for facilities where management of entering and leaving people becomes important and watching over systems for solitary elderly people.

■Corporate profile

Address 〒830-0047
1970-5,Tsubukuhonmachi, Kurume, Fukuoka
URL http://ysyenterprise.co.jp/
Query 0942-39-3937 or Website.

Number of employees : 4
Capital : 13 million yen
Year of foundation : 2004
Representative :
President & CEO
Shinji Yayoshi

■Outline of business

Development of live video delivery systems
Development of face recognition and monitoring systems
Development of FA inspection system

Intelligent Sensor Technology, Inc.

Tools essential to the paradigm shift in product development
"Taste receptor TS-5000Z", which can quantify tastes

Product features

The taste receptor TS-5000Z mimics the human taste reception mechanism and can quantify the “taste” of a variety of foods, pharmaceuticals, etc. In addition to our research fields, we are working on product development and marketing, sales in fields that require objective taste evaluation.

Technical features

Since there are thousands of taste substances, it is not possible to evaluate taste only with “high selectivity”, i.e. one-to-one correspondence to a particular substance as what conventional chemical sensors have done. Therefore, “global selectivity” that responds similarly to similar tastes is pursued. Through joint research with the Toko Laboratory at the University of Kyushu, we have developed "artificial lipid membrane taste sensors" with global selectivity responding to various taste components.

Novel features of this technology

By combining taste receptor data with personal preference data in addition to human tongue evaluation (sensory evaluation), it is possible to objectively ascertain and evaluate taste preferences by different regions, genders, ages.

Taste recognizer TS-5000Z

Management strategy / Vision

●Background

In 1989, we began joint research with Toko Kiyoshi, professor of Kyushu University and realized the practical application of taste receptors for the first time in the world.
Conventionally, taste was regarded as a subjective indicator and could not be evaluated, but today with taste receptors taste can be objectively evaluated.
We want to contribute to food culture through the taste sensor business with the aim of connecting the world together with a common language of taste (taste).

●Future business deployment

We jointly participate in businesses commissioned to Kyushu University, and apply the technology of taste receptors that has been cultivated so far to conduct R&D of robotic automation in manufacturing.
We have already developed new sensors and devised measurement procedures to reduce measuring time.
We also aim at robotic automation in management of raw materials and products by developing products with optimal design that takes into account the taste and cost of raw materials measured by taste receptors, and by measuring samples with taste receptors at the factory.

■Corporate profile

Address 〒243-0032
5-1-1, Onna, Atsugi, Kanagawa
URL http://www.insent.co.jp/
TEL 046-296-6609
FAX 046-225-7933

Number of employees : 25
Capital : 125 million yen
Year of foundation : 2002
Representative :
President Hidekazu Ikezaki

■Outline of business

R & D, manufacture and sale of taste recognition equipment
Manufacture and sale of consumables

■Patents on the product

U.S. Pat. Nos. 5,162,413 and 5,806,004,
We have acquired many other patents.

EditForce Inc.

Changing the world with tools that can manipulate both DNA/RNA

Cell Processing Technology Using PPR Protein from Japan

Future value of cell processing technology

・The BioEconomy (bio-economy) of the OECD reached ¥250,000,000,000 (as of 2015) and is estimated to be ¥970,000,000,000 (as of 2025), and cell processing technologies such as genome editing and RNA manipulation are indispensable for future industries.

・It used to take over 10 years to improve rice quality, but it is possible to shorten this scale to a span of several years by using cell processing technology.

Cell processing technology using PPR protein

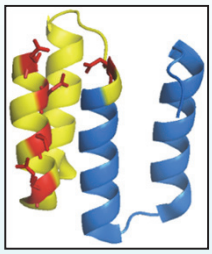
・We have established techniques for engineering cells (DNA/RNA) using PPR (Pentatricopeptide repeat) proteins, which are abundant in plants.

・A motif composed of 35 amino acids is used to recognize nucleobase. By combining PPR proteins with a variety of effectors (e.g. cleaving, inserting, or lighting), we may realize what cannot be achieved by previous technologies.

Novelty compared with other technologies

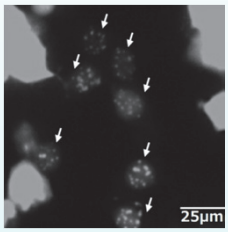
There are technologies such as ZF and TALEN/CRISPR that are to be compared. All of these technologies edit only the genome (DNA), and we believe that ZF is superior to other technologies as tools for genome editing and RNA manipulation. As described below, patents have been filed in the United States as well as in Japan, and are pending in EU, Singapore, and other countries.

●Model of PPR protein



Ringel et al.、 Nature 2011

●With PPR protein engineering technology RNA recognition used



Management strategy / Vision

●BACKGROUND OF THE VISION/CORPORATION

・With "New Tools lead to a New World" as our corporate vision, our core PPR-protein technology is a revolutionary technology that can simultaneously control RNA, which is the downstream of DNA, in addition to DNA editing.

・This technology was invented by Kazuhiro Nakamura, Associate Professor, Graduate School of Agricultural Sciences, Kyushu University, and we established the company in hope of using this technology not only in academia but also in a wide range of industries. The ability to manipulate DNA/RNA makes it widely applicable to a wide range of species including pharmaceutical, chemical, agri, and other fields.

●Outlook

We place the utmost importance on alliances with pharmaceutical companies.

・Our technology aims to develop new molecular-targeted drugs targeting RNA and to develop therapeutic drugs to correct the balance of gene expression in acquired diseases.

・In addition, by collaborating with a variety of companies and research institutes, we hope to increase the yields of compounds (bioethanol, plastics, etc.) and production efficiency by using the power of microorganisms.

■Corporate profile

Address 〒819-0395
Kyushu University in the Agri-biotechnology research facilities, 744, Motooka, Nishi-ku, Fukuoka, Fukuoka
URL https://www.editforce.jp
Query TEL 092-802-4935 or Website

Number of employees : 29
Capital : 313million 500thousand yen
Year of foundation : 2015
Representative : President and Representative director Takahiro Nakamura

■Outline of business

Development and provision of gene-editing technologies. Research into reagents, drug discovery, seeds and seedlings, material production, etc. Intellectual Property Management, etc.

■Patents on the product

・Design and use of artificial proteins that bind to RNA [PCT/ JP2012/077274, Kyushu University]

・Design and use of artificial proteins that bind to DNA [PCT/ JP2014/061329, Kyushu University and Hiroshima University]

SUDx-Biotec Corporation

Super-Sensitive Virus Testing Technologies and Kits Based on Glyco Nanotechnology

《Painless, ultrasensitive influenza test》

Application Features of Product･Services

1. The sensitivity of the test is about 500,000 times greater than that of the rapid diagnostic kits used in general medical institutions, enabling influenza testing with saliva, a noninvasive specimen, to be performed in less than 20 minutes.
2. On-site testing was conducted in Izumi City, Kagoshima Prefecture, to detect influenza infection in wild birds at an early stage and to promptly issue accurate warnings to government agencies. Based on this warning, the relevant parties continued to take preventive measures to prevent the occurrence of highly pathogenic influenza in poultry farms with a high sense of crisis. As a result, the damage to poultry farms in Kagoshima Prefecture was completely prevented.

Virus capture and purification kit

Features of Technologies Supporting Products and Services

Nanobiotechnology using a newly developed oligosaccharide chain has enabled the detection of virus-bound oligosaccharides using sugar chips, and the capture and concentration purification of virus in noninvasive (painless) saliva samples can be performed using smaller nanoparticles than those of the immobilized virus. Thus, genetic tests can be performed on-site. See the video at http:/www.sudxbiotec.jp/ movie.html.

Comparison and novelty with technologies of other companies

The ability to easily and quickly concentrate and purify virus particles in samples increases the sensitivity and the efficiency of the pretreatment of genetic tests. Noninvasive, sensitive, rapid diagnostic tests can provide prompt access to appropriate therapy, reduce the chances of using unnecessary antibiotics, and prevent nosocomial infections. In addition, taking the lead to introduce this technology will differentiate your clinic from others. Livestock poultry epidemics can be controlled to minimum by testing on-site and responding with a sense of crisis.

Examination using a kit
Upper left: Onsite inspection of wild birds in our in-house laboratory, in the right upper care welfare facility, and in the lower left.

Management strategy / Vision

●Background

This venture company is launched by Kagoshima University in September 2006 to contribute our biochemistry technologies to people all around the world, based on the research results of "Practical Application of Sugar Chips"(JST Pre-venture Program). The representative director served in JST as leader from October 2003 to September 2006. What is important for management is to avoid violations of human ethics and morality, and keep altruism in mind. We aim to be such a company as Kyocera Co., Ltd., a former venture company which has succeeded based on Inamori management philosophy.

●Future development of business

In November 2017, "a highly sensitive virus test method using sugar chain nanotechnology" proposed by Kagoshima University Hospital was judged to be "suitable" at the Advanced Medical Conference, and became an officially approved test method for human viral diseases. In addition, we are conducting demonstration research on tests for domestic poultry viruses such as avian influenza in collaboration with industry and academia. We recruit collaborative hospitals, testing companies, nursing care facilities, and public agencies from local governments. In cooperation with the brother company SUDx-TW, the project will be conducted from Taiwan to the whole Asia.

■Corporate profile

Address 〒890-0013
1-42-1, Shiroyama, Kagoshima, kagoshima
URL http://www.sudxbiotec.jp
Query Website

Number of employees : 7
Capital :
20million 750thousand yen
Year of foundation : 2006
Representative :
President & CSO
Yasuo Suda

■Outline of business

Research and development, product marketing, and contract research on sugar chains

■Patents on the product

TW 356816; CA 2556406;SG 124889;
JP 4800771; US 8765384; EP 1909104;
JP 4883640; US 8067393; JP 5716727;
JP 5692738;US 9464281;JP 5700321, etc.

Threedyne Corporation

The strength is the size of the corresponding field according to the request!

25-year experience has resulted in an enterprise that can also be refurbished

Solving problems with a wide range of processing methods

Originally we founded resin processing as a raw work but we understand customers' requirements and make optimum proposals without sticking to resins. It is such a company that "make your feelings" from processed goods to automatic equipment and cleaning equipment.
I will also make a joint application in intellectual property and build a relationship of WIN WIN.

A kit "Nanako" which can be safely removed from the injection needle simply by stabbing and rotating it

The fact that there are many needle stick injuries by pen type syringes has been posed as a problem in academic societies, etc., which is an industry subject. When examining whether there is anything that can be done for medicine which is a different field, I reached the processing of the kit making full use of the technology of resin processing which I do as existing business. This pen type injection needle stick injury prevention kit "Nanako" is a product that helps injury at the time of needle removal and prevention of injury at needle collection. We also worked on Unique Monozukuri by making full use of creativity in 25 years of achievement, such as "development of spherical body complete noncontact floating unit" and "development of custom made respirator mask" that we worked on from customer's request is.

Pen-type syringe needle stick injury prevention kit

Management strategy / Vision

●Background

In 1993 (about 25 years ago), MHI was founded in the industrial plastic parts-making industry, and then has been able to design, manufacture, and assemble semiconductor-related equipment in response to many needs. OEM supplies for wafer cleaning equipment, original products from our company, OEM supplies for glass substrate transportation equipment, and pure yellow LED fluorescent lamps provide new medical products and disaster prevention-related products. Since it is soon the fifty-five-year section of the foundation, we are investigating how to develop the fifteen-year future. In addition to resin processing as described above, we do not decide to achieve this by creating alliances with other companies in order to respond to the needs of customers in a wide range.

●Future business development

In Japan, there is a situation where there is no big force of declining population from the age of small children, and in the near future, there will be a lack of working population. Therefore, the robot is used as a worker coming from overseas to Japan. How quickly the overseas workers are put into play as a battle is considered to be a waiting issue in all industries. For this reason, we will develop a business that focuses on "education" for this worker. The foundation is to build a training system that introduces VR technology for medical equipment. In particular, we are focusing on content production. In response to the needs of our customers for all existing and new businesses, we are expecting the widespread use of products using "education" as a keyword not only in the medical field but also in all industries in the future.

■Corporate profile

Address 〒866-0022
82-1 Gunchiku-SanbanCho,
Yatsushiro Kumamoto
URL http://www.threedyne.jp/
Query TEL: 0965-37-3401
FAX:0965-37-3402

Number of employees : 50
Capital : 20 million yen
Year of foundation : 1993
Representative :
President & CEO
Koji Hagihira

■Outline of business

Plastics-processed products, aluminum profile products, fully automated semiconductor-cleaning equipment, substrate-related equipment, automobile-related equipment, food-related equipment improvements and modifications, new businesses (development of medical/disaster prevention-related products, light storage-type handrail covers "green ZERO", development of custom-made respirator masks, pen-type syringe needle removal kits "wheat").

Medical • Health care • Biotechnology

SENTAN Phama Inc.

Nanoformulation can enhance solubility!

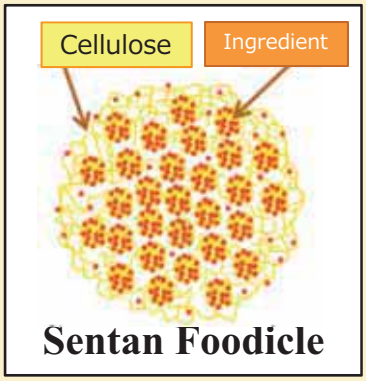
Sentan Foodicle ~Encapsulated Nanoparticles to Be Eaten ~

World's first encapsulated nanoparticles to be eaten!

We had developed Sentan Foodicle, an ingredient-encapsulated nanoparticle that can be used as food material. “Foodicle” is our new coined word by combining "Food" and "Particle."We are the first in the world to develop it.

What is Sentan Foodicle?

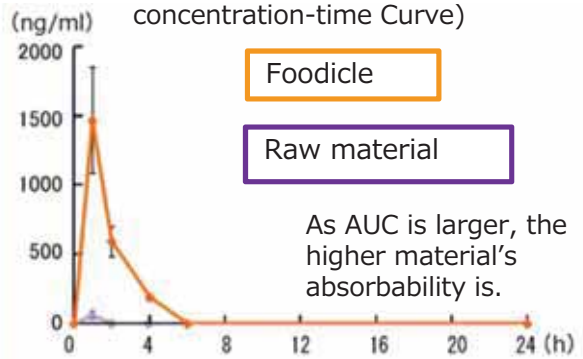
It’s a safe and reliable food material, an ingredient-encapsulated nanoparticle. When we eat it, we can take ingredient in our body efficiently. Its quality is quite different from those of nanoparticles prepared simply by crushing into nano-sizes.



Features of Sentan Foodicle

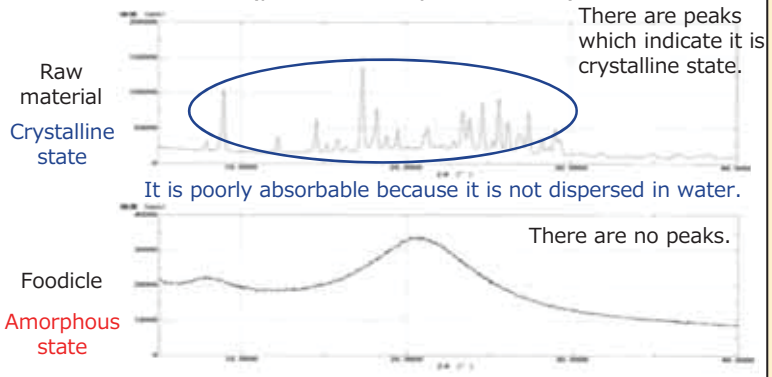
The state of insoluble material has been changed into the amorphous state by our technology, so that we have improved Foodicle’s solubility and absorbability far more than the raw material’s.

AUC (Area Under the blood concentration-time Curve)



AUC of Foodicle 47 times larger than that of raw material.

PXRD (powder X-ray diffraction)



Management strategy / Vision

●Background

Our company is a drug discovery bio-venture. We developed Sentan Foodicle by taking the know-how and human resources which are developed in drug R & D to food industry. This makes we can take various ingredients in our body efficiently and easily.

●Future development of business

Currently, we are conducting R & D for practical use of Sentan Foodicle with companies and universities. In the future, we plan to commercialize Sentan Foodicle containing low-absorbency active ingredients in supplements, foods, and cosmetics. We aim to be a company that contributes to self-medication and human health in modern societies where health-consciousness increases by introducing new preventive medicine possibilities into every industry with Sentan Foodicle.

■Corporate profile

Address 〒812-0027
9F-2-1 Shimokawabatamachi, Hakata, Fukuoka
URL http://www.sentaniryou.co.jp
TEL 092-271-5508
FAX 081-92-282-1164

Number of employees : 26
Capital :
221million 400thousand
Year of foundation : 2007
Representative :
President Masaaki Matsubara

■Outline of business

Research and development of pharmaceuticals, medical devices and quasi-drugs, and the manufacture and sale of health foods, etc.

■Patent on the product

Application 2016-165785
Application 2016-165797
Commercial Application No. 2016-078524 "Food Sanitation Nanoparticles"
Commercial Application 2016-078525 "Food Nanoparticles"

Toi Medical Co., Ltd.

New practice of salt intake management

Salt-excretion supplement DelSalt (Desols)

Application Features of Product･Services

It is well known that excessive salt intake is a major contributor to lifestyle-related diseases such as high blood pressure, and the market for low-salt products is expanding year by year due to the heightened awareness of health.

On the other hand, it is not completely accepted because of problems such as taste resistance to low-salt products.

Our salt-excretion supplement DELSOL is a new approach to absorb salt and eliminate it in the stool. Salt intake is reduced without sacrificing the taste of our meals.

Features of Technologies Supporting Products and Services

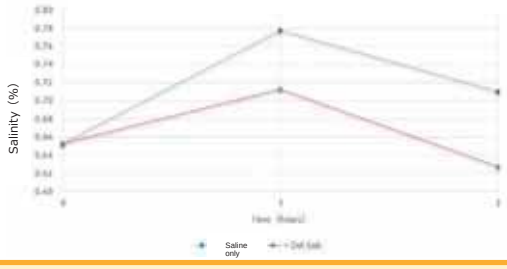
Alginate, a proprietary compound developed in collaboration with Medical School of Kumamoto University, has been found to effectively adsorb salt in food and prevent an increase in blood salt concentration after meals. (Equivalent to 20% cut in average salt intake of Japanese)

Novelty compared with technologies of other companies

Previously, the supplements for high blood pressure had been a symptomatic approach, such as dilating blood vessels, but this product is a counter-causal approach not to absorb the salt of the offending substance, and it is a brand new simple mechanism.

Del Salt (Desols), which was jointly developed with Kumaga University

Measured blood salt concentration



Management strategy / Vision

●Background

We are a manufacturer of medical devices, and our main business is the manufacture and sale of artificial dialysis tapes and other products.
In this context, we learned about the very strict dietary restrictions for dialysis patients and have been looking for ways to solve these problems.
At one time, we discovered in a literature that dietary fiber improved hypertension in rats, and based on this, we worked with Medical School of Kumamoto University on research of effective salt absorption. We developed this supplement over a period of two years.

●Future development of business

With the development of this product, we have established a new approach to absorb excess materials from the body and excrete it outside the body.
We will continue our research and develop supplements that can selectively adsorb other substances (e.g. heavy metals and phosphorus).
Since this product has the potential to be commercialized in a variety of forms as well as supplements, we hope to contribute to improving the conditions of hypertensive patients in Japan by making it widely recognized that salt intake management is possible in collaboration with food companies and other organizations.

■Corporate profile

Address 〒860-0041
1F Victory Apartment, 4-40-1,]Saikuchou, Chuouku, Kumamoto, Kumamoto
URL http://www.toymedical.jp
Query TEL 096-288-5920 or Website

Number of employees : 6
Capital : 20 million yen
Year of foundation : 2013
Representative :
President Hidenori Takeshita

■Outline of business

Development, manufacture and sales of medical supplies
Development, manufacture, and sales of health foods
Development, manufacture, and sale of beauty care products

■Patents on the product

Patent application filed in June 2017

TOKSO MEDTEC Co., Ltd.

Continuous aspiration for 24 hours, gentle, gentle, and nonmanual, improves Q・O・L

『Amore SU1』 continuous aspirator for intratracheal sputum

Application of Amore SU1 intratracheal sputum aspirator

This product is a 24-hour continuous suction device for tracheal sputum in patients who have had a tracheostomy. This device can quickly aspirate sputum generated in trachea without human involvement. It is noninvasive and does not distress the patient during aspiration, greatly reduces the burden on the nurse, and allows the patient to sleep well at night. In the medical field, the burden of suctioning at night is reduced, and home care is also possible for elderly nursing care. The benefits of the reduction in expenses and the reduction in the burden of nursing care are considerable, and the degree of social contribution is substantial. Continuous suction equipment for tracheal sputum is the world's first device of its kind. Demand for continuous suctioning equipment is strong in Japan and overseas, and we believe that this equipment will become increasingly popular in the future.

Automatic aspirator of intratracheal sputum

Features of Amore SU1 intratracheal sputum aspirator

In a proprietary low-flow, high-pressure suction system, gentle, slow, continuous suctioning for 24 hours is performed to aspirate the sputum generated in the trachea. Since suction flow is low, intratracheal sputum can be aspirated noninvasively with a structure that does not affect breathing and does not adhere to the tracheal wall. A proprietary low-flow, high-pressure suction pump offers an excellent continuous suction system for high viscosity tracheal sputum, which does affect breathing of patients on a ventilator.

Cuff pressure regulator

Comparison with general aspirators and social contribution

Unlike conventional suctioners, it is an entirely new category of suctioners that continuously aspirate sputum for 24 hours without human intervention. Because of the sophistication of medical care and the increase in the number of chronic patients in an aging society with a low birthrate, the need for nursing power and home care, the equipment for aspirating sputum without human involvement has a considerable advantage in reducing the burden on both the patients and the nursing and medical personnel, and saves labor costs. Launched nationwide, it has a lot of word-of-mouth and repeat customers, and has received high acclaim from patients and medical professionals, who havebeen sending voices of pleasure to the public through blogs, etc.

Management strategy / Vision

●Background

We have begun the development, manufacture, and sale of medical, nursing care, and welfare equipment since we met with ALS patients with intractable diseases. We are developing our own products in cooperation with medical professionals. For example, we have developed an automatic cuff pressure regulator that automatically adjusts the cuff pressure of an electricity-free tracheal tube in collaboration with a university hospital and sells it nationwide. In order to expand sales to users nationwide, we are exhibiting at exhibitions and academic conferences, and conducting public relations activities for specialist magazines and patient meetings.
Our strengths include listening to opinions from the medical profession, collaborating with the medical profession to develop devices and conduct clinical evaluations, and sparing no efforts to commercialize products that are unique.

●Future development of business

In the future, we will continue to conduct research and development centered on healthcare and lifecare equipment to produce our own products and expand them nationwide and overseas. We are committed to product development with the aim of becoming a niche leader, centered on respiratory care, suction care, and dementia care. The company has a marketing business license for medical devices and has a lot of experience with approval of pharmaceutical devices, and is aiming for growth in the field of medical devices. In recent years, we have participated in MEDICA (Germany), the world's largest exhibition of medical devices, and are preparing for overseas expansion. We plan to promote sales nationwide and overseas by strengthening cooperation with domestic sales dealers and trading companies.

■Corporate profile

Address 〒879-0232
318 Ohnegawa, Usa, Oita
URL http://www.tokso.net
Query TEL 0978-33-5595
FAX 0978-33-5596
MAIL info@amor.co.jp

Number of employees : 24
Capital : 10 million yen
Year of foundation : 1997
Representative :
President & CEO
Shuichi Tokunaga

■Outline of business

Manufacture and sale of medical care, nursing care, and welfare equipment
Long-term care insurance service business

■License, etc.

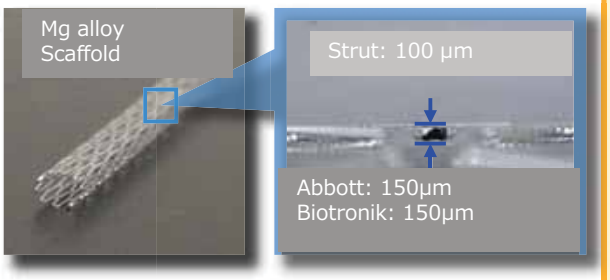
Medical device manufacturing business license
License for Repair of Medical Devices, License for Leasing of Sales of Medical Devices

Japan Medical Device Technology Co., Ltd.

Be expected as a next-generation coronary stent
Bioabsorbable scaffold made of magnesium alloys

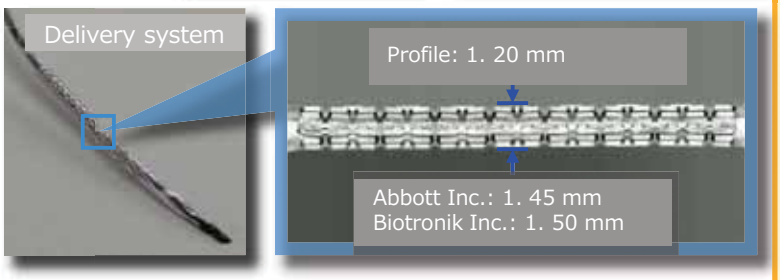
What Is Bioresorbable Scaffold?

Mg alloy "bioabsorbable scaffold" indwelled in the coronary artery lesion decomposes within 1 year after healing process, so it can restore vasomotion in the postoperative remote period. As a result, "reduction of delayed thrombosis occurrence"
Clinical effects such as "shortening the period of taking antiplatelet drugs" and "expanding options for postoperative retreatment" are expected.



Superiority over other products

The greatest feature of our product is in ultra-thin 100 μm strut composed of elements with biological safety. Thinning of the strut is directly linked to the performance of the product (healing ability of the affected part). Abbott Vascular (US) Abstb GT 1 (made of polylactic acid) and Biotronik (Germany) "Magmaris" (made of Mg alloy) struts are 150 μm each, which makes it possible to reduce the thickness by more than 30%. In the former case, delayed thrombosis occurring in a long-term decomposition process (over 3 years) is a subject, and the latter constituent elements contain rare earths, so that doubt remains in biological safety.



Management strategy / Vision

●Venture policy

The government will contribute to prolonging healthy life expectancy and reducing medical costs in Japan's ultra-aging society by commercializing the world's highest-performance bioresorbable scaffold made of Mg alloy under a system of industry-academia-government cooperation and medical-engineering cooperation centered on Kumamoto Prefecture. Furthermore, we aim to gain a share of overseas products in the coronary stent market, which is occupied by overseas products, and to contribute to the international expansion of medical devices (expansion of exports).

●Future development of business

In the fiscal year of FY2003 we plan to settle for the final product specifications, go through the manufacturing process and structure, perform the performance tests and conduct biological safety tests, and plan for FIM examination in FY2002. In the FIM test, we prove non-inferiority of primary endpoints (restenosis rate, etc.) for non-absorbable stents and then license out to medical device manufacturing dealers. In addition to the therapeutic equipment for cardiovascular diseases, we will develop the technology we have developed into treatment equipment for digestive organs and exercise equipment.

■Corporate profile

Address 〒861-2202
Bldg. D, 2020-3, Tahara, Mashikimachi,
Kamimashiki-Gun, Kumamoto
http://www.jmdt.co.jp/
Query TEL096-285-8278 or Website.

Number of employees : 16
Capital : 10 million yen
Year of foundation : 2014
Representative :
Representative Director
Shuzou Yamashita

■Outline of business

Contract research and development of coronary scaffolds and medical devices

■Patents on the product

Pending applications such as PCT/JP2016/85038 Bioresorbable Stent, Application 2017-14668 High Performance Bioresorbable Stent

BioMedical Technology HYBRID Co., Ltd.

3D cell structure manufacturing technology

Pharmacological evaluation model

Application features of products and services

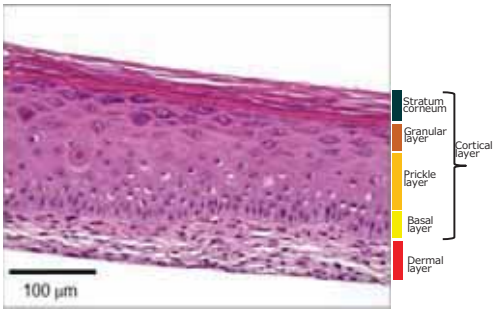
A three-dimensional human tissue model that reflects biological function is a useful tool to comprehensively evaluate safety, pharmacokinetics, and pharmacology in drug discovery research, and can be used as a low-cost and efficient alternative to animal studies that perform toxicological evaluations.

Features of technologies that support products and services

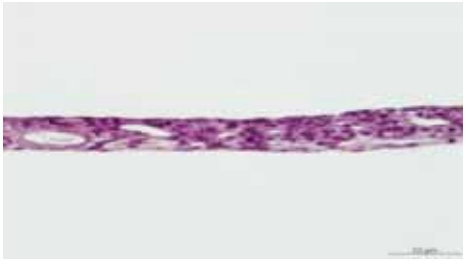
Three-Dimensional Structure Construction Technology: Cell Integration Method
This technology makes it possible to construct three-dimensional cell stacked tissue fragments in a simple and short time by applying an alternating stacking method based on polymer chemistry to form nanofilms of macromolecules on each cell.
1. Short-term construction of three-dimensional organization 2. Introduction of vascular and lymphatic networks 3. Adaptability to Multiple Cells
4. Multi-Cell Arrangement Control 5. Long-term culture stability

Novelty compared with technologies of other companies

1. Current evaluation kits allow assessment of repeated dose toxicity, metabolic activity, and cell-to-cell responses that are difficult to assess.
2. Drug screening using the Pharmacology Evaluation Model from the initial stages of drug discovery enables short-term and high-precision evaluation of toxicity, thereby realizing a reduction in drug discovery costs using new drugs.



Three-dimensional skin model



Three-dimensional liver model

Management strategy / Vision

●Background

・In response to the demand for alternative methods for animal experiments, which are essential for the development of new drugs, we are focusing our efforts on the production of pharmacological evaluation cells to support drug discovery.
・Established in 2001 as a university venture company, the BMT Hybrid was certified as a venture approved by Kagoshima University in 2017.
・We will also take on the challenge of creating local communities and promoting regional education through industry-academia-government collaboration.

●Future development of business

・In the three-dimensional structure business supporting drug discovery, we will focus on sales of pharmacological evaluation models in the medical, cosmetics, food, and chemical markets.
In the medium-to-long term
・We will implement a variety of infectious disease treatment projects that make use of the three-dimensional cell structure.
・We will promote research and development of wellness businesses that make use of local advantages and use subtropical useful plants.

■Corporate profile

Address 〒890-0065
Kagoshima University Innovation Center 3F, 1-21-40, Korimoto,Kagoshima, Kagoshima
URL http://www.bmthybrid.co.jp
Query TEL 099-285-8790 or Website.

Number of employees : 11
Capital :
96million 250thousand yen
Year of foundation : 2001
Representative :
President and Representative director Masaaki Nawano

■Outline of business

Activities related to pharmaceuticals, health foods, medical machinery, and environmental conservation, etc.

■Patents on the product

Basic Patent No. 4919464, Pat. No. 2010-252514, Patent Application 2008-271067, etc.
Peripheral Patents: PCT/JP2013/073833,WO2014038599 A1, Patent Application 2011-071939

PHARMACOSEL CO., LTD.

System for evaluating the transfer of drugs and food-functional ingredients to the brain

In vitro blood-brain barrier model BBB Kit™

BACKGROUND OF BBB Kit™ DEVELOPMENT

As the number of people with dementia and depression increases with age, it is necessary to rapidly develop therapeutic drugs and functional components that affect the brain. For these ingredients to be effective, the drug must be transferred into the brain. Unlike other organs, the brain is protected by special barrier functions (the blood-brain barrier; BBB), so only a very limited number of components can be transferred to the brain. Therefore, we have developed the BBB Kit™ as a system to quickly assess whether components under development can be transferred to the brain. This product is the world's first and only product.

Accelerate CNS drug discovery!

Blood-brain barrier in vitro reconstitution models

BBB Kit™

World's first
Primate (monkey) BBB model
BBB Kit™ (MBT-24H)
Content: Main unit, dedicated culture solution

The blood-brain barrier (BBB) is reconstituted in cell culture plates.

Features of the BBB Kit™

This product uses three types of BBB cells, which enable rapid evaluation of the intracerebral migration of many components in a typical cell culture facility.
This product is a frozen product that can be thawed for the convenience of the experiment and tested 4 days after thawing.

Comparison with conventional technology

Evaluation of brain penetration of drugs, etc. has been conducted in animal experiments.
Compared to animal experiments, the time required is greatly reduced, which is expected to improve the development speed and reduce labor costs. It can also contribute to reducing the number of laboratory animals that will be sacrificed.

	Animal experiments	BBB Kit™
Time	Several days: breeding, administration, euthanasia, autopsy,Extraction	**About 4 hours: Product thawing and evaluation test**
Cost of evaluating one compound	1,500-3,000 yen: for purchase and maintenance of rats 100-2,000,000 yen: monkey purchase and maintenance cost	**¥8,200: Rat BBB Kit** **¥12,400: Monkey BBB Kit™**
Number of Animal Victims at 1 Compound Evaluation	One animal	**Approximately 0.2 animals: Rat BBB Kit™** **Approximately 0.005 monkey BBB kit™**
Number of compounds evaluated per time	1	**12**
Skill level of scientist	Need	**Unnecessary**
Reproducibility of evaluation results	By the experimenter	**Stable**

Management strategy / Vision

●Background
The company was founded in 2005 as a bio-venture from the Faculty of Medicine, Nagasaki University. By developing, manufacturing, and selling BBB Kit™, we support the development of new drugs by pharmaceutical companies and other entities.

●Future development of business
Based on the knowledge gained through the development of the BBB Kit™, we are developing technologies that contribute to the expansion of BBB-related products and the optimization of cell culture.
In addition, we will promote cooperation with research institutes and companies involved in the development of new drugs and functional ingredients and cell culture using our technology.

■Corporate profile

Address 〒850-0862
D-FLAG 1-43, Dejimacho, Nagasaki, Nagasaki
URL http://www.pharmacocell.co.jp
Query TEL : 095-895-7431
E-mail info@pharmacocell.co.jp

Number of employees : 5
Capital :
71million 485thousand yen
Year of foundation : 2005
Representative :
President Masami Niwa

■Outline of business

Development, manufacture, and sale of BBB Kit™, entrusted testing using BBB Kit™, and development, manufacture, and sale of cell culture-related products

■Patents on the product

U.S. Pat. No. 5105905
U.S. Pat. No. 5113332

universal sound design inc.

Facilitate counter service and communication with elderly people during nursing care

Dialogue Support Systems+"comuoon"

World's first dialogue support equipment that can be used without attaching to ears

Until now, most of the devices that support hearing are hearing aids and sound collectors worn by people with hearing impairments themselves, and there is no device to support on the speaking side. Comuoon is the world's first dialogue support system that makes it possible to smooth communication with the elderly by making it easier to hear the voice of the speaker, without having to wear it to the hard of hearing person.

GOOD DESIGN AWARD 2017

Sonic Brain achieved by Japanese high-quality sound technologies

Mr. Nakaishi, inventor and representative of Comuoon, found that not only the size but also the clarity is greatly affecting human's speech, and it took three years to commercialize it.

"Sonic Brain Technology" realizes an egg-shaped design that enhances directivity, achieves optimum acoustic characteristics, a digital amplifier that reduces sound distortion to the utmost, and ultimate clarity.

Research results are published in the U.S. neurology-related magazine "Neuroreport"

Compared with general speakers, Comuoon has confirmed the usefulness of word discrimination of hearing-impaired people at the cerebral cortex level. This suggests that Comuoon® may be used as a life support tool for people with hearing loss. The results of this research are published on August 16, 2017 in the US Neurology magazine "Neuroreport".

Comuoon mobile: Battery type and portable.
Winning the 2017 Good Design Award

Management strategy / Vision

●Background

With worldwide aging going on, communication impairment due to hearing loss has become an issue for mankind.
The number of hearing-impaired people in the world in 2015 exceeds 500,000,000 and is said to increase to 900,000,000 people in 2025. Our company has technologies to realize the sound which is hard to hear by the elderly, studies difficulty in medicine scientifically and transmits to the brain neatly. Our technology is expected to be applied in various fields such as TV and disaster prevention broadcast radio.

●Future business deployment

In Japan, 6000units are already in operation at banks, hospitals, pharmacies, nursing care facilities, schools, companies and others.
We proactively propose products to administrative institutions and automobile schools visited by elderly people, automobile schools, public transportation facilities, medical institutions to be introduced for impartial dementia examination of hearing impaired persons, and automobile schools where elderly people are taking courses. In addition, in order to realize the improvement effect of further hearing, we are promoting research under the adoption of "FY2010 Strategic Basic Technology Advancement Support Project".

■Corporate profile

Address 〒105-0022
2F,Marinx Tower,
1-9-11,Kaigan,Minato,Tokyo
URL http://u-s-d.co.jp/
Query 03-6427-1467 or Website.

Number of employees : 12
Capital :
194million 430thousand yen
Year of foundation : 2012
Representative :
President & CEO
Shinichiro Nakaishi

■Outline of business

Design, development, and sale of auditory support equipment
Sound design planning, production, and consulting of stores, buildings, and indoor spaces

■Patents on the product

◎Registered design registration No. 1470423
◎Japanese Patent No. 5731602 for assisting hearing-impaired people who acquired the patents

Medical • Health care • Biotechnology

Reif Co., Ltd.

Acquisition and uutilization of walking parameters 「Foot pressure sensor system」

Outline and characteristics of technology · Comparison with conventional technology

You can acquire walking parameters (foot pressure, walking speed, stride, etc.) from a pressure sensor incorporated in the insole. Wireless communication standards correspond to Bluetooth class 2, and walking parameters can be utilized in software of external equipment.

Users can easily measure parameters by just setting the insole in the shoes. Many other devices that can acquire walking parameters are in the form of a sheet-like installation type, and walking places are limited. With the foot pressure sensor system, it is possible to acquire walking parameters without restricting the location if it is a flat room.

Appearance of foot pressure sensor system

Possible applications

At present, we have developed and commercialized software that meets the needs of gait rehabilitation at hospital facilities and functional training of nursing facilities based on gait parameters obtained from foot pressure sensor systems. It is assumed that other training support equipment, care support equipment, and movement/transfer support equipment in medical rehabilitation and care sites are used as analyzers by linking walking parameters with each other.

Management strategy

●Company profile

We have know-how of manufacturing such as medical rehabilitation equipment, nursing care service equipment, sphere control technology, compact multi-axis arm, etc. We realize products from concept and user viewpoint from planning proposal to prototype development until now. (We are doing from planning to software development and hardware development at our company.)

●Representative product

Gait rehabilitation support tools (tree)
Walking assessment insole PiTCare (pit care)

●Business development and business partnership

《Domestic business》

We are promoting the introduction of our products to research institutions such as health care professionals, social welfare professionals, and universities. We expect to collaborate with distributors, such as merchants, who have expertise in promoting sales in specialized areas.

《Overseas business》

We aim to expand sales of our products in Singapore. After the establishment of sales activities in Singapore, we plan to proceed to other Southeast Asia.

■Corporate profile

Address 〒802-0065
2-8-17 Mihagino,Kokura Kita-ku, Kitakyusyu,Fukuoka
URL https://reif-corp.com
TEL 093-923-1139

Number of employees : 7
Capital :
90million 440thousand yen
Year of foundation : 2008
Representative :
President Chief Technical Officer
Masao Mori

■Outline of business

1. Development, manufacture, and sale of medical equipment and systems
2. Development, manufacture, and sale of rehabilitation support equipment and systems
3. Development, manufacture, and sale of nursing care, welfare equipment, and the systems

AMI Co.,Ltd.

Use stethoscopes × ECG × IoT to realize automatic diagnosis and remote medical care!

Remote-medical stethoscopes with automated diagnostic assistance

～System that not only can automatically detect valvular heart diseases such as aortic stenosis, but also can be used in remote clinical practice～

Automated diagnosis-assistant AI

・The automatic auscultatory function of auscultatory sounds is achieved by synthesizing the timing of myocardial action potentials and auscultatory sounds and processing them in a unique program.

Breakthrough of stethoscopes

· Placing electrodes around the stethoscope and detecting contact status of the stethoscope
· Detect arrhythmia such as atrial fibrillation from electrocardiogram
· Assist with automatic diagnosis of respiratory diseases in combination with ultrasound
· Blood pressure monitor · Vital sign measurement function such as oxygen saturation is added
· Digitize various data and make it available for remote medical examination

Awards received

・Omron Koto Challenge 2nd Prize for Excellence
・KDDI∞ Lab Excellence Award
・Kumamoto TEC Planning Lampri Special Award for Examiners

Prototype numbering machine

Prototype machine

Management strategy / Vision

●Background

The president, a cardiologist, started with the belief that he wanted to reduce sudden death and heart failure, and that he wanted to be a world in which he would be able to receive the same level of medical care wherever he lived. To solve this problem, we have developed a super-stethoscope (a remote-use stethoscope with automatic detection of valvular heart disease equipped with various vital sign measurement functions) that is necessary for this purpose, which is considered to be "automated diagnosis" and "remote medical treatment."

In the future, we will not only develop devices, but also develop remote medical care services to solve problems in areas with depopulation, such as remote islands and remote areas.

●Future development of business

Telemedicine has been promoted as a national measure in recent years. Rapid medical innovation will lead to research and development of new medical devices and services in order to realize preventive medicine, health promotion, and medical expenditure reduction.

■Corporate profile

Address 〒867-0068
5-98,Hamamatsucyo,
Minamata,Kumamoto
URL http://ami-kumamoto.com
TEL 0966-83-9632

Number of employees : 6
Capital :
11million 500thousand yen
Year of foundation : 2/11/2015
Representative :
President and Representative director
Shinpei Ogawa

■Outline of business

・Development of Medical Devices: Automatic diagnosis of electronic stethoscopes
Breaking down and developing assist functions
・Development of Assist Function: Preventive Medicine + Remote
Completely new health care services

■Patents on the product

(Application 2015-249853)(Application 2016-254258)
(Application 2016-055892) (Application 2017-163947)
(Application 2016-055893)

Bloom Technology corporation

Powerful support tool to detect signs of lifestyle-related diseases

Toxic advanced glycation end products (AGEs) measurement

Technical product overview

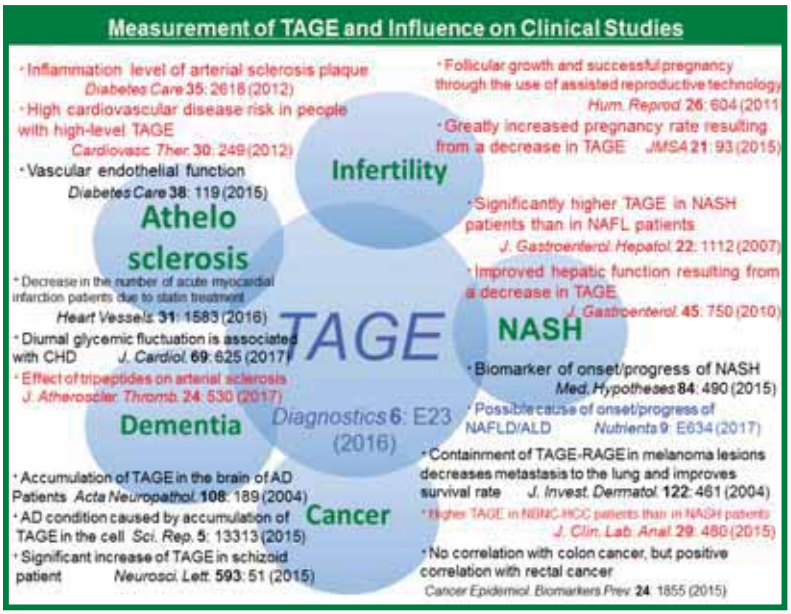
Recently, advanced glycation end-products (AGEs), particularly AGEs (Glycer-AGEs, later called toxic AGEs(TAGE)) derived from glyceraldehyde, a sugar-metabolizing intermediate, are known to be strongly associated with the development of lifestyle-related diseases. Continuous measurements of this TAGE can help to monitor the extension of healthy life expectancy.

What is AGEs?

The advanced glycation end product (AGEs) is a "material formed when proteins and sugars are heated."It is highly toxic and is considered to be a causative agent of aging. Exposure of the body to high concentrations of sugar for a period of time results in an irreversible change to a toxic substance.

Many foods and beverages also contain AGEs. We take AGEs into the body through meals and snacks. Some of the AGEs in these foods and beverages is broken down during digestion, but about 7% accumulates in the body without being excreted.

It is important to live in ways that do not store AGEs, which can cause serious illness in other parts of the body.



Management strategy / Vision

●Background

・We focused our attention on the AGEs derived from toxic glyceraldehyde (TAGE), discovered by Professor Masayoshi Takeuchi at Kanazawa Medical University

・We aim to extend our healthy life expectancy by detecting early signs of lifestyle-related diseases through TAGE measurement.

●Novelty and originality

・We are finding out TAGE structures for the first time in the world.

・Measuring TAGE inside blood is a proprietary technique of our company.

・The company was the first in the world to discover the presence of TAGE in urine.

●Future development of business

・We are conducting clinical trials , aiming for TAGE measurements to be covered by insurance in the future

・We aim for drugs diagnosing infertility by developing urine measurement kits.

■Corporate profile

Address Head Office/Research : 〒860-0812
304, Incubator with Kumamoto University Cooperation
3-14-3,Minamikumamoto,Chuo,Kumamoto
Tokyo Office: Fourth floor of the international Building 3-1-1 Marunouchi, Chiyoda-,Tokyo
URL http://bloom-technology.co.jp
Query TEL: 096-375-5511 FAX: 096-206-1787

Employees : 4
Capital : 14million 750thousand yen
Year of foundation : 2014
Representative : President and Representative Director
Hideki Saito

■Outline of business

Drug development, entrusted testing, and entrusted measurement

■Patents on the product

[Application 2017-168387]

FILTOM Inc.

World's First Filter Technology Saves the Environment of the Earth and the Skin!
"C6 Placenta Series" that cannot be called cosmetics

Lineup reflecting the outstanding personality of FILTOM

We are deploying "Placenta · Plasma" which collected tissue fluid itself from placenta material without dilution / overheating by completely unheated and cosmetics "Placenta C 6 series" using Placenta Plasma. A rich natural hot spring lotion "Yamada Izumi series" that could be realized by membrane separation technology. In addition, we will commercialize what we have never had before, without being concerned with common sense, such as the "pure soap series" that was reborn as gel by our mechanochemical technology. FILTOM keeps sticking to individual product development.

<placenta plasma>

Original filter technology utilizes the active ingredients as it is

Our proprietary PD membrane separation method is the world's first filter technology to stably remove nano-sized particles. From the intermediate idea of "dialysis" technology used in artificial dialysis etc. and "filtration" technology used in water treatment, blood and blood vessels in our body are being the models. Only after the completion of separation technology which changes common sense of filter up to now, a completely unheated active placenta with the active ingredient intact was realized.the common sense of filters so far, a fully non-heated active placenta with the active ingredient as is was realized.

<PD Membrane Separator>

Hybrid laboratory

FILTOM is also a raw material maker that develops placenta extract itself, which is a raw material of cosmetics which is rare in cosmetics industry, mainly in preparation manufacturing. In addition to final products, we also developed our own in-house production of filter membranes themselves, as well as basic equipments and technologies necessary for manufacturing as well as filter membranes themselves. Hybrid lab that can complete everything in-house. That is FILTOM.

Management strategy / Vision

●Background

Internal research was inevitable if research and development that does not have a model were to make something not in the world. FILTOM is a development-oriented research institute that works consistently from materials to finished products. A hybrid lab that boasts development speeds not found in other companies and makes use of a wide network with outside regardless of genre. That is FILTOM. We want to keep changing common sense of chemistry

●Future development of business

The goal that FILTOM aims for is seawater desalination by PD membrane separation. In our body, the kidneys continue purifying 200 L of water every day. PD membrane separation has the potential to realize advanced water purification comparable to its kidneys. The first step is the placenta plasma. Looking to seawater desalination 50 years later, FILTOM will continue to stick to the road leading to that goal.

<Business development image>

2025 Achievement of farm bacterial removal (200 nm to be separated)

Virus removal from drinking water 2035 (separation target 20 nm)

2045 Achievement of seawater's moderation (separation target 2 nm, salinity concentration 0.1% or less)

2055 Achieve low cost desalination of seawater

(Separation object 0.2 nm, salt content 0.01% or less)

■Corporate profile

Address 〒808-0138
#103, 1-103 HibikinoKita,
Wakamatsu-ku, KitaKyushu, Fukuoka
URL http://www.filtom.com/
Query TEL 0120-526-106 or Online.

Number of employees : 7
Capital : 1 million yen
Year of foundation : March 2014
Representative : President & CEO
Satoshi Takeshita

■Outline of business

Development and manufacture / sale of cosmetic / health food raw materials, handmade cosmetic support, PD membrane separation method etc. Separation technology consulting service

■ Patents on the product

Achievement of practical application of PD membrane separation technology, invention of water-repellent cream technology, invention of spa water sampling method preserving hot spring ingredients, invention of pure soap gel by mechanochemical method

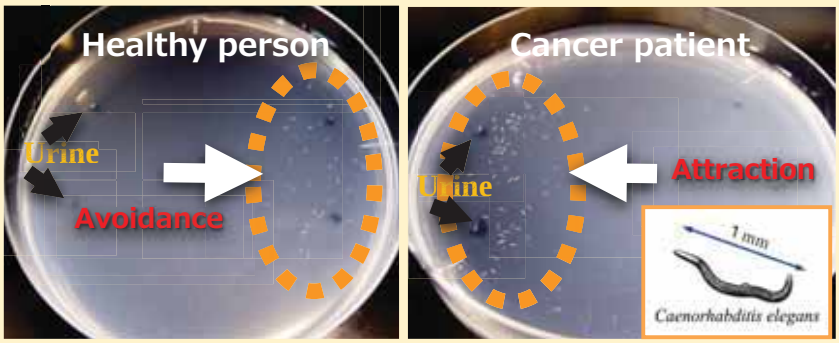
Hirotsu Bio Science Inc.

Nematodes respond to cancer smell.

Examination utilizing olfaction of nematodes –New concept "Biological Diagnostics"–

N-NOSE

"N-NOSE" is a registered trademark of HIROTSU Bio Science Inc.

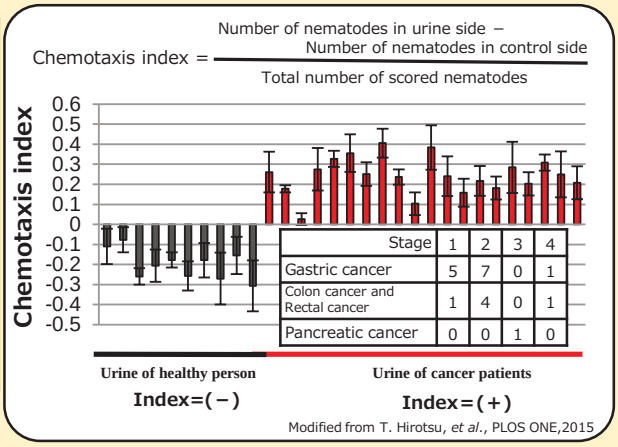


Advantages of nematode *C. elegans*

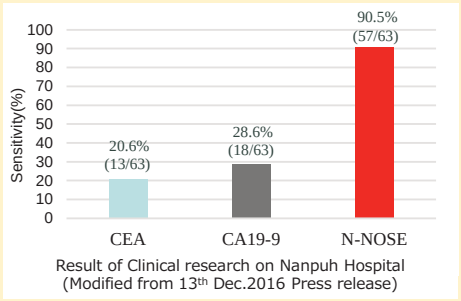
1) One of the most well-known model organisms
2) Easy breeding
3) A convenient platform for molecular biology and genetics
4) Good olfaction

Advantages of N-NOSE (Nematode NOSE)

1. Painless : Requires only 1 drop of urine.
2. Simple : No special conditions for urine collection (fasting, etc.).
3. Fast : Results will be obtained in about an hour.
4. Affordable : Low initial cost enables adoption in developing countries.
5. Detect various cancers at once : Suitable as a cancer screening.
6. Early detection : Responds to urine of Stage 0 and Stage 1 cancer patients.
7. High sensitivity : Detects cancer with more than 90% sensitivity.



Modified from T. Hirotsu, *et al.*, PLOS ONE,2015



Result of Clinical research on Nanpuh Hospital
(Modified from 13th Dec.2016 Press release)

N-NOSE as an First Cancer Screening

1st Option Cancer Test

- ◎Urine sample only.
- ◎High-precision
- ◎Inexpensive test fees

Can detect multiple, early-stage cancers
Be suitable for 1st screening

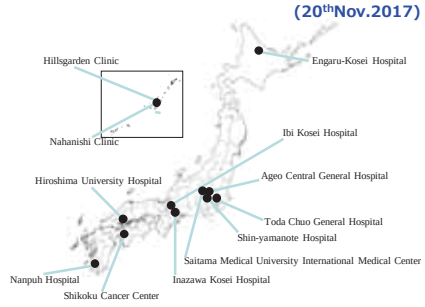
Pos. → **Detailed inspection**
- PET-CT scan
- Mammography
- MRI scan
- Ultrasonic diagnosis
- Physiological examination
- Endoscopy

Neg. → Continue regular check-ups

Periodical examination: several tests per year →
- Cancer Patients: as follow-up observations
- Healthy person: together with routine urinalysis

Clinical research collaborators

(20thNov.2017)



■ Future prospects of our business

N-NOSE balances "low cost" with "high sensitivity". We establish the evidence of clinical studies and develop an automated analysis device aiming at practical use in 2020. We will promote the introduction of N-NOSE in medical checkups.

■Corporate profile

Address 〒107-0052
Akasaka 5-Chome Building 3F,
5-4-9 Akasaka, Minato-ku, Tokyo
URL http://hbio.jp
Query Website

Number of employees : 30
Capital :
58million 850thousand yen
Year of foundation : 2016
Representative :
President & CEO
Takaaki Hirotsu

■Outline of business

Research for Biological Diagnostics: Research, development, manufacturing, and sale of cancer diagnostic equipment utilizing *c. elegans* olfactory sensors

■Patents on the product

Chiba, Fukuoka, Ehime, Okinawa

P mind Co., Ltd.(PEACE OF MIND CO., Ltd.)

Development of an innovative minimally invasive treatment platform
— Global Blockbuster Treatment Equipment (unapproved)

Application and features of the product

1. The first and only product to eliminate your pain.
2. Subjects are patients worldwide who suffer from pain and adverse drug reactions.

Features of Technologies Supporting Products and Services

1. Alternating magnetic field generator weaker than geomagnetic field.
2. Achieving regulation of neurotrophic factor and serotonin production.

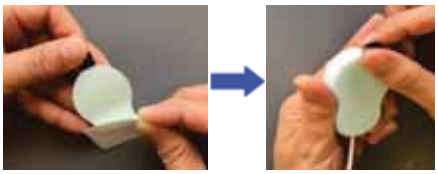
Novelty compared with technologies of other companies

1. A technique that produces fewer side effects than the existing therapies.

Non-accredited medical device

Previous problems (fibromyalgia, neuropathic pain, etc.)

1. Drug treatment can cause side effects and has unstable effectiveness.
2. Other symptomatic treatments are often ineffective.
3. Temporary but not permanent mitigation can be expected.



Management strategy / Vision

● Background

We have been dedicated to the development of minimally invasive therapeutic equipment for over 20 years.

In 2016, we were selected to be supported by NEDO's R&D-oriented venture support project, and AMED's medical-industrial collaborationn project. In the randomized double-blind placebo-controlled trial, significant therapeutic effect has been observed.

● Management policies

Under the motto "Chance,Challenge,Change" (3C), we make contributions to the society through our R&D work.

we strive for building a win-win relationship with partner companies and sales companies (joint research and development is pursued if conditions allow).

● Future development of our business

Accredited as a medical device for minimally invasive pain treatment

After becoming a listed company in 2020, We aim for public offering of new shares several years later.

● In addition to stiff shoulders and low back pain, medical devices for menstrual cramps, headaches, and neuropathic pain, rheumatism, arthritis that about 80% of women are suffering from are developed. We also develop medical devices for dementia (including Alzheimer's disease) as well as for breast cancer. (All of them are Minimally Invasive Therapeutic Equipment)

■Corporate profile

Address 〒860-0085
3-37-24, Takahira, Kitaku, Kumamoto, Kumamoto
URL http://www.p-mind.co.jp/
Query TEL 096-345-6600 or Website

Number of employees : 10
Capital : 234million 450thousand yen
Year of foundation : 2011
Representative : Representative Director Iwao Kinoshita

■Outline of business

Research, development, and manufacture of minimally invasive pain treatment equipment
Fibromyalgia/rheumatism
Neuropathic pain (chronic pain, acute pain)
Grickle's lumbar spine (lumbar spine, thoracic spine, cervical spine)
Depression and Alzheimer's disease
Breast cancer treatment equipment, etc.

Aquafairy Corporation

"Fuel cells are expensive" is a story in the past! 20 yen/Whr or less!

AF-EFE30H, fuel cells that produce hydrogen on the spot and convert it into electricity

Highly hybrid with rechargeable batteries

The highest instantaneous power is left to the secondary battery because it is hybrid with the secondary power source. Fuel capacity is a portable power source that serves as a fuel cell. AF-EFE30H can be used indoors as well since it only releases steam during the operation. Since two fuel cartridges can be installed, the other can be replaced while one is in use to maintain continuity. Utilization scenes are very effective as emergency power sources and outdoor observation power sources.

AF-EFE30H (Latest Type)

Five features to overturn the concept of conventional fuel cells

Compact and lightweight: Light weight because there is no separator since the cell is molded in plastic.
Long-term fuel storage: If stored in aluminum pouch bags, it can be stored for more than 10 years.
Long-term power generation: Continuous power generation is possible if there is fuel. Fuel can be easily replaced.
Large capacity: Fuel-cartridges are 600Whr per bottle. Duration of 1, 200Whr is maintained since two fuel cartridges can be installed.
Low environmental impact: Calcium hydroxide generated after reaction can be discarded by general waste.

Plastic cell

Adoption of "on-site production and use" hydrogen supply system

By adopting the hydrogen supply method, we are designed to "produce hydrogen on-site and use it (at low pressure)."For this reason, it is safe to use hydrogen that is generally at high risk of explosion. Aquafairy cells are thin cells made of plastic and do not require a separator. This is because the patented technology allows the pressurization to be held permanently. Accordingly, tightening with bolts is not necessary, and the product has excellent mass production and maintains stable quality through a simple structure.

Management strategy / Vision

●Background

Aquafairy aims to be a company that can contribute to the future of the Earth by realizing a rich living environment with technology and passion. With the motto of breaking the common sense or "breaking" common sense, our technology emphasizes "Columbus`s egg" idea that does not depend on new technology or high technology.We want to create new products and new markets. Currently we are conducting fuel cell business in the electricity building, but Aquafairy leaves its name as fuel cell brand.

●Future development of business

The policy of fuel cell development is to increase the capacity and increase the output, and we are targeting 100 kW equivalent. Also we aim to reduce the cost of the main unit and cartridges for general households. Currently we are working in collaboration with Misato-machi, and are introducing power for disaster prevention measures to municipalities, which are model cases of introduction to various municipalities. We will introduce this system to medical facilities and dispensing pharmacies as emergency power sources (e.g., electronic medical record systems), and will continue to study the possible use of leases during events and festivals.

■Corporate profile

Address 〒882-0024
Nobeoka Tekko Danchi,39-112
Ootakemachi, Nobeoka, Miyazaki
URL http://www.aquafairy.co.jp
Query 0982-33-3789 or
reception@aquafairy.co.jp

Number of employees : 80
Capital : 45 million yen
Year of foundation : 2006
Representative :
President and
Representative director
Naoyuki Ichinose

■Outline of business

Planning, development, manufacturing, and sales of fuel cells

■Patents on the product

Insert Molding Cell Patent (Thin Cell):
Patent No. 4511610
Hydrogen Generating Material Patent:
Patent No. 4588792

eneforest Co.,Ltd.

Even in the space where there are people, air conditioning measures can be safely done 24 hours a day.

Aeroshields, a UVGI UV sterilizing and irradiating device

Characteristics of the aeroshield

- Operable in living room space by special structure
- Filter-less, daily inspection / No need for exchange work
- Electricity cost is 7.6 yen even in operation for 24 hours
- Full support after installation (lamp replacement / inspection etc.)

Aeroshielded (Top)/Industrial Stand-by Room (bottom)

User's voice

Elderly residential newspapers
Influenza - Infection did not occur for the first time since the introduction of ultraviolet sterilizers

高齢者住宅新聞　2016.11.2（毎週水曜日発行）

インフル感染 初のゼロ

紫外線殺菌装置導入で

Partial excerpt from the 2016/11/2 elderly residential newspapers

Management strategy / Vision

●Mission
Create the world where people can live both mentally/physically happy.

●Introduction of Services (Aeroshields)
Medical (hospital, clinic), care facilities, welfare facilities, juvenilers, nursing gardens, nursing gardens, food plants, co-cooking stations, etc.
Companies (call centers, employee dining rooms, office rooms) and department store superpers (milk feeding rooms, toilets), etc.

●Future business deployment
Existing products will include safety management sensors and monitoring functions. In addition, new products are introduced into emergency vehicles, and based on these technologies, we will develop them into the public transportation infrastructure.

Although details cannot be added here, we are recruiting partner companies in the sales path and technical aspects listed on the left.

■Corporate profile

Address 〒870-1161
394-12,Oaza Kinoue,Oita,Oita
URL http://www.eneforest.co.jp/
Query TEL 097-588-8120 or Website.

Number of employees : 5
Capital : 10 million yen
Year of foundation : 2006
Representative :
President & CEO
Toshihiko Kihara

■Outline of business

Development and sale of sterilization equipment for air sterilization. Infection can always occur in social life. We aim to meet the challenges that we face through measures against the air environment.

■Patents on the product

U.S. Pat. No. 6,063,424

Adsorption Technology Industries Co.,Ltd.

(Sales contact: Futamura Chemical Co., Ltd.)

For the highly efficient purification, storage and transport processes of biogas!

Two-tower biogas purifier, VPSA Methane Purification and Separation and Recovery Equipment

What is VPSA Methane Purification/Separation and Recovery Equipment?

From biogas to non-methane components (carbon dioxide, hydrogen sulfide, siloxane, water, etc.) as adsorbents
This equipment is used to purify and recover purified methane by absorbing and removing it.
VPSA(Vacuum Pressure Swing Adsorption refers to pressure changes that adsorb and dislodge at different pressures
This method refines, separates, and recovers the target gas by repeatedly wearing it.

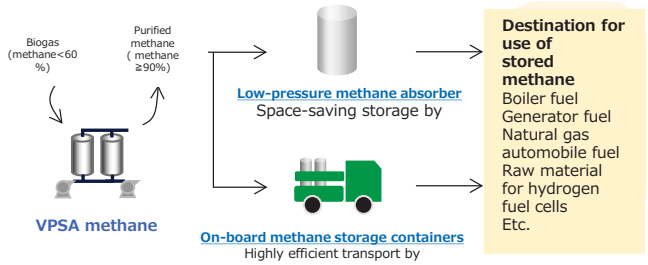
Feature

1) It adopts VPSA method, and it is high recovery rate by recycling process of desorption gas.
2) It is unnecessary to collect traps dedicated to trace components such as hydrogen sulfide and siloxane, and it is possible to adsorb and desorb all components except methane in the adsorption tower of this equipment.
3) This equipment is a result of R & D and demonstration project of NEDO New Energy Venture Technology Innovation Project etc.
A demonstration project is underway at the B - DASH Project (Sewerage Innovative Technical Demonstration Project).
(In the B - DASH project, it will be a demonstration of single - column VPSA - methane.)

VPSA methane

Purification, storage, and transportation of biogas

Together with this equipment, we have been researching and developing a device (methane storage device) that can save space and large capacity at a low pressure (less than 1 MPa-G) of purified methane obtained from biogas with VPSA-methane. Since this methane storage device fills with less than 1 MPa, qualified person is not required. By using these devices in combination, it is possible to purify, store and transport highly efficiently even if the place where the biogas is generated and the destination are separated.



Highly efficient purification, storage and transportation of biogas

Management strategy / Vision

●Background

It is a venture company originating from Nagasaki University in Omura City, Nagasaki Prefecture, and designs, manufactures. We sell gas treatment, water treatment, and gas separation equipment using adsorption technology.
In addition to this equipment, we have a standard lineup of equipment (Max Ozone Reactor) that efficiently absorbs and decomposes VOCs, etc. with ozone on the surface of the adsorbent and catalyst. Principal applications are VOC decomposition at printing plants, semiconductor plants, and other facilities, as well as in the workplace environment.

●Future development of business

We will provide inexpensive, space-saving VPSA methane in cooperation with biogas-related companies (such as methane fermentation tank manufacturers and generator manufacturers) and livestock farmers.

■Corporate profile

Address 〒856-0026
Nagasaki Prefecture Industry Promotion Foundation · Incubation facility, 2-1303-8, Ikeda, Omura, Nagasaki
URL http://www.kyuchaku.co.jp/
Adsorption Technology Industries
0957-52-1430
Estimate and other inquiries:
Futamura Chemical 052-562-1831

Number of employees : 6
Capital : 100 million yen
Year of foundation : 2006
Representative :
President and Representative director
Yasunori Hotta

■Outline of business

Design, manufacture, and sale of gas treatment, water treatment, and gas separation equipment using adsorption technology

■Patents on the product

Biofermentation Gas Utilizing Adsorbent of Patent 4956089
Methane recovery and purification from
Adsorptive Separation of CH4 from Patent 6114341 Biogas
METHODS AND DEVICES FOR REPORT

Stella Environment Corporation

Small-scale NU100B medical waste incinerators

Radiant heat gas combustion mode to ease environmental impact

Application Features of Product･Services

In developing countries, risks and damage caused by the inappropriate disposal, open burning, and illegal dumping of infectious medical wastes are becoming serious social problems.

Features of Technologies Supporting Products& Services

Biomass fuels such as firewood and waste wood and/or petroleum fuels can be selected as combustion improvers. Despite the small furnaces, they have the ability to detoxify and reduce the volume of incineration, which meets the standard heating of medical waste incineration (the temperature inside the furnace is 800℃ or higher and the gas remaining for 2 seconds or longer without combustion). (Patent No. 475518-Solid Biomass-fired Waste Plastic Small Incinerator and Chimney Top Structure for Inhibiting Dioxin Generation)

Novelty compared with technologies of other compani

Thanks to the attached photovoltaic generation equipment with accumulators, this product can be installed in areas where the supply of commercial power sources is unstable. In addition, the furnace of simple construction and the simplified operating system make easy maintenance possible.

Products :NU-100 B

Management strategy / Vision

●Background

Reducing the risk of infectious diseases and improving the urban environment

●Novelty and originality

・Reduction of dioxin emissions from radiant heat combustion
・No smoke by controlling the gasification rate
・Fuel Efficiency through Waste Heat Recovery System
・Efficiency improvement by using the continuous input method
・All-weather operations thanks to a special chimney umbrella

●Future development of business

The expansion of sales and cost reduction through local production is pursued by exploiting the incinerator markets in Indochina countries and the Pacific island states and establishing service systems there.

■Corporate profile

Address 〒106-0031
3A, Courtyard HIROO, 4-21-2,
Nishiazabu, Minato, Tokyo
URL http://stella-sec.jp
TEL 03-6805-0734
FAX 03-5468-5463

Number of employees : 7
Capital :
27million 500thousand yen
Year of foundation : 2005
Representative :
Representative Director
Hisatoshi Shimase

■Outline of business

Sale and installation of small incinerators and photovoltaic generators for medical waste

■Patents on the product

Patent No. 475518

SEIKO ELECTRIC CO.,LTD.

We will help you to make effective use of places with the potential of introducing small hydroelectric power generation.

Compact Small Hydropower System

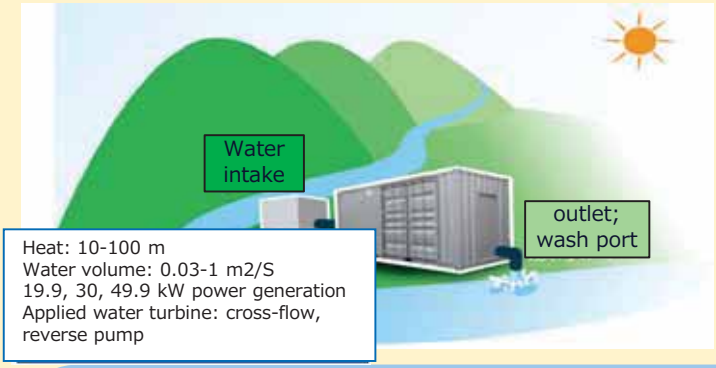
We offer low-cost, one-package configurations for conventional small hydroelectric power generation systems.

Product Features

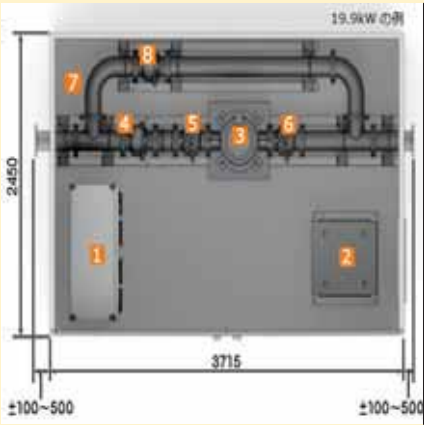
· All power generation functions are installed in containers
· Eliminate buildings, piping and wiring work, shorten local work
Improve safety
· Low price products · Simple remote monitoring (option) · Low noise
· Release water can be maintained even in case of failure

Size of equipment

Output	Type	Size
19.9kW	STN-0199	W2450×L3715×H2500
30.0kW	STN-0300	W2450×L3715×H2500
49.9kW	STN-0499	W2450×L3715×H2500×2 units



Heat: 10-100 m
Water volume: 0.03-1 m2/S
19.9, 30, 49.9 kW power generation
Applied water turbine: cross-flow, reverse pump



1 Control panel
2 Trans former
3 Water turbine + generator
4 Inlet valve
5 Inlet manual valve
6 Outlet manual valve
7 Bypass pipe
8 Bypass electro motive valve

Management strategy / Vision

●Background
The use of renewable energy as a CO2-free power source is increasing.
On the other hand, there are many places where small hydroelectric power generation below the 50 kW can be installed in Japan, but the installation is not advanced due to the high cost of buildings, facilities, and construction.

●Exhibition at Exhibition Place
・2017NEW environmental exhibition (Tokyo Big Sight)
・Eco-Techno 2017 (Western Japan General Exhibition)
●Future development of business
Environmentally Friendly Water to Help Create a Low-Carbon Society
We will promote the popularization of power generation and business development.

■Corporate profile

Address 〒812-0008
2-7-25, Toko, HakataKu,
Fukuoka,Fukuoka
URL http://www.seiko-denki.co.jp
Query TEL092-473-8831 or
Website.

Number of employees : 970 (consolidated)
Capital : 2billion 323million yen
Year of foundation : 1921
Representative :
President and Representative director Yasuyuki Fukushige

■Outline of business

Power (production and sale of power supply equipment-related systems and equipment), Environment and Energy (manufacture and sale of public and industrial equipment-related systems and equipment), Information (planning, development, operation and maintenance and sale of computer systems and software), Electronic Control Equipment Optronics and Services

Xenesys Inc.

XP series of all-welded plate exchangers
All-weld type without gaskets
Low Pressure Loss x High Heat Transfer Performance x Compact = XP Series

Application features of the XP series of all-welded plate heat exchangers

The XP series can be used under conditions of higher temperature and higher pressure than conventional plate heat exchangers using gaskets. Since Japanese companies cannot independently design or manufacture all-welded plate heat exchangers and have been relying on expensive overseas products, there has been new needs here.

Feature of the technology that supports the XP series of all-welded plate heat exchangers

A new heat exchanger developed for the practical use of a new technology called OTEC (ocean thermal energy conversion), which uses the minor temperature difference of 20℃ between warm and cold sea water to generate electricity, is characterized by good heat transfer performance and low pressure loss.
The plate is characterized by an asymmetric pattern suitable for evaporation and condensation and enjoys high pressure resistance, low fluid movement resistance, and high heat transfer performance. The abundant heat transfer experimental data accumulated by voluntary development is used in design. In addition, the featured all-welding has achieved stable welding quality and cost reduction through the use of robot welding.

Novelty compared with conventional plate heat exchangers

Although conventional plate heat exchangers are superior to tube heat exchangers in terms of high performance, compactness, and low cost, the use of a large quantity of gaskets to prevent fluid from leaking out restricts the temperature and pressure at which they can be safely used, and increases the pressure loss at which the four holes for the inlet and outlet of the fluid provided in the heat transfer plate and the flow of the fluid do not contribute to heat transfer. Especially in processes involving evaporative condensation, it is pointed out that there is a problem with the basic structure of the same inlet and outlet size.
The XP Series consists of a fully welded heat transfer part with no gasket and a pressure-resistant part that does not require subsequent bolting, in which heat transfer plates with no holes for fluid inlet and outlet ports are arranged in the vertical direction. Fluid is flowed into the gaps between the plates directly from the right and left sides and the top and bottom of the heat transfer plate, thereby minimizing pressure loss, and the nozzle size and position of the entrance and exit port, and the length of the plate can be optimally determined according to design conditions. This is also advantageous in that the degree of freedom in design is high and high performance can be easily realized.
Since no gaskets are used, they can be used at high temperature (350℃) and high pressure (4MPa) and can be cleaned with chemicals or jets, which makes cleaning easier and reduces maintenance costs.

Marine temperature differential power generation
Evaporators and condensers

For binary power generation

For steelworks
Low water cooler

Gas-gas
Heat recovery

Management strategy / Vision

●Background

We have focused on the energy of the ocean and have been working on research and development with the aim of realizing and widespreading use of OTEC. We are also conducting research and development to generate electricity from ihot spring water and ndustrial waste heat generated from petroleum and steel production facilities, which are relatively low in temperature. The core of our technology is the design of these temperature difference power generation systems and the production of heat exchangers, which are the most important components that make up the systems.

●Future business deployment

We want to develop new applications such as evaporators and condensers for small-temperature difference power generation using waste heat from factories, hot spring water, etc., reboilers and condensers around distillation towers in chemical plants, which have hitherto been difficult to replace with plate type, and gas/gas heat recovery, which is the inlet for effective utilization of unused heat energy, which is now being fully developed.

■Corporate profile

Address 〒107-0052
2F 1-9-13,Akasaka,Minato,Tokyo
URL http://www.xenesys.com
Query TEL 03-6441-2152
or Website

Number of employees : 23
Capital : 200 million yen
Year of foundation : 1989
Representative :
President and
Representative director
Sadayuki Jitsuhara

■Outline of business

Engineering of ocean temperature difference power generation and exhaust heat temperature difference power generation, operation management work, design, manufacture, and sale of heat exchangers

■Patents on the product

HEAT EXCHANGE PLATE, HEAT EXCHANGE UNIT, HEAT EXCHANGER SYSTEM, HEAT EXCHANGER SHELL STRUCTURE, HEAT TRANSFER MEMBER AND HEAT TRANSFER MEMBER FORMING METHOD, SEAM WELDING APPARATUS

JAPAN FUDO INDUSTRY Inc.

Strong ally of low wind speed area!
New Double Propeller Wind Power Generator and Attachment

What is a Double Propeller Wind Power Generator?

A dual propeller wind power generator is a wind power generator with a total of two propellers, one layer in front and one back. By having two propeller layers, we boast of high bootability and high power generation efficiency. In addition, there are two propellers, whereas only one set of tower / generator is needed, so it is excellent in cost performance.

Proprietary power transmission technology

The double propeller wind power generator has been researched by many research institutes for nearly 40 years as a means of generating nearly two wind turbines at a cost of about one wind turbine. In this process, we have succeeded in realizing low-cost technology, which has long been a technological problem: the power of the front and rear propellers rotating at different speeds is connected to a generator without energy loss and without affecting the characteristics of the wind turbine.

No processing / retrofitting to other company's products possible

The blade power transmission mechanism, which is the core of our double propeller wind generator, is unprocessed and can be rearranged to most competitors. Costs can be introduced at a low cost enough to match performance improvements. By installing the double propeller attachment, it is possible to generate electricity even with about half the wind before installing the attachment, and the total power generation has also been improved by about twice.

1 kW (2.2 m diameter) wind turbine currently in operation in Higashi-ku, Fukuoka-shi and Kurume-shi

Management strategy / Vision

Utilizing expertise in wind tunnel experiments

As our name implies, we are good at designing and manufacturing wind tunnel test equipment. We are optimizing the performance of wind power generators by dense wind tunnel tests that can only be done by wind tunnel manufacturers. At present, we are constructing a large wind tunnel facility with a 3 m × 3 m outlet.

Proposals for future development and cooperation

As a backup to other companies' wind turbines, we will be able to handle them by distributors and trading companies who sell wind turbines. We will also be able to deliver our wind turbines and offer them to customers who operate them.
In particular, because of its superior characteristics at low wind speeds, it can be transported in urban and low-lying areas where wind is not expected. Currently, we are supplying 1 kW products, but we are progressively developing large 5 kW 10 kW machines.

■Corporate profile

Address 〒830-0054
1147-1,Fujimitsumachi,Kurume, Fukuoka
URL http://japanfudo.com/
Query Website

Number of employees : 10
Capital :
5million 950thousand yen
Year of foundation : 2016
Representative :
President Joshua Lawn

■Outline of business

Development, manufacture, and sale of wind power generators, power systems, wind tunnel testing equipment, measuring devices related to wind tunnel testing, and measurement software.

■Patents on the product

Application No. 2016-162074
[Fluid machinery and power generators]

HiBiQoo LLC

Creation of a small-scale resource recycling system that contributes to the revitalization of the region

Working in cooperation with the community, we create a mechanism and make it "visible"

What is a Small-Scale Resource Recycling System?

Although the general flow of resource recycling is the foundation that supports our lives, there are not many opportunities for consumers to see the ultimate destination of resources.

The Small-Scale Resource Recycling System is a mechanism for completing resource recycling at the local, business, store and event level. Although each cycle is small, we believe that it contributes to local creation and is an important element of the Circular Economy, which has attracted attention in recent years.

Building a Resource Recovery and Management System Besides gathering resources at sites such as city marathons, outdoor sports, and events, we also support the creation of an environmentally conscious system.

Visualizing Resource Recycling through Goods and Stories

In creating this mechanism, what we emphasize is "how to deliver circulated results to consumers". We believe that if we can communicate well that consumers are working on resource circulation in the region, we will be able to gather better quality recycling resources easily.

Therefore, we are actively working on the development of new recycled materials / processing technologies and attractive products making full use of traditional technology and latest digital technology. We also provide exciting experiences through citizen workshops and others using those products.

Design of Recycled Goods & Stories To return original goods to consumers along with resource recycling stories by combining traditional craftsmanship, 3D digital manufacturing, and local content.

Environmentally Conscious Activities Lead to Revitalization of Local Communities

We hope to eventually revitalize the local community through these activities. For this purpose, it is important to work together with the local community. We will work together with our stakeholders to create a sustainable resource circulation system that can be used by a variety of local human resources, in harmony with local culture and initiatives.

The Kitakyushu Eco-Premium Review Committee's Special Award for FOLMICS™, a new material that can be used in recycled goods, was highly evaluated.
Kitakyushu Marathon 2014 received a high recognition for its low carbon performance in the resource recycling system (December 2014).

Management strategy / Vision

●Goal of cracking

We hope to contribute to the revitalization of the local community by creating and implementing a package that integrates "goods, services and mechanisms" with a focus on environmental considerations in our activities, in cooperation with the local community.

●Future development of business

In the future, we intend to promote small-scale resource recycling in tourist areas and other areas, and to establish a system that will facilitate the migration of tourists.

Other related initiatives include the development of digital forming technology with specifications for recyclable resources, and support for the construction of low environmental impact and zero emission systems in the industrial sector. We will also expand collaboration with business entities that wish to promote resource recycling.

■Corporate profile

Address 〒808-0002
10-21, Koyomachi, Wakamatsuku,
Kitakyusyu, Fukuoka
URL https://hibiqoo.co.jp
Query 093-752-2700
or Website

Number of employees : 4
Capital : 1 million yen
Year of foundation : 2011
Representative :
Representative Partner
Shintaro Matsuda

■Outline of business

Research and consulting on the environment, low carbon and resource recycling, product planning, development and sales using recyclable resources, research and development, etc.

■Patents on the product

Patent No. 6221098 (environmentally friendly materials made from recyclable resources)

Riamwind Co. Ltd.

World's first compact wind turbine system with wind lenses and multi-rotors

Highly efficient and quiet “multi-lens wind turbine”

Application characteristics of small wind turbine systems

1. A major shift to a renewable energy society has begun. Use of distributed power sources.
   Market is large, and the small and medium-sized wind turbine market is rapidly expanding.
2. This product boasts the world's highest energy acquisition rate per unit area.
   1) World’s first wind turbine system that incorporates multi- rotor concept into the quiet wind lens turbine

Features of Technologies Supporting Small Wind Vehicle Systems

1. Based on the technology of diffuser-augmented wind turbines called “Wind Lens” developed by Kyushu University, we develop the wind turbine systems with high energy acquisition efficiency through its synergie, no bird strike and high lightning resistance level and good appearance.
2. World's only wind turbine that solves environmental problems, and has high social acceptability
3. Being fit for mass production, cost reduction, and large capacity (in the future, five-wheels, etc.)

Novelty compared with technologies of other companies

1. A large number of foreign wind turbines have been introduced in the context of FIT system. However, the cost will be reduced with introduction of our wind turbines as they are of higher efficiency than the foreign ones.
2. Less wind turbine noise and landscape destruction result in high acceptability, which draw a line between us and other companies.

3 kW lens windmill (single machine), Kyushu University Ito Campus installed, and about 10 other turbines (independent system)

9 kW multi-lens wind turbine (Kitakyushu City Chuki is experimenting to obtain certification) Certification is scheduled to be acquired in March 30 (grid connection)

Management strategy / Vision

●Background

・Originated from wind engineering section of Research Institute for Applied Mechanics (RIAM) at Kyushu University, we grasp the nature of the wind near the surface, estimate the flow patterns of the wind, and understand the wind itself. The world’s first “wind lens technology” came into being with the cooperation between fields of aeronautics, mechanical engineering, electrical engineering, and material engineering. Representative of Current Ream Wind is the project leader.
・In cooperation with Kyushu University, we will contribute to the use of natural energy and contribute to local communities through cooperative companies.

●Future business deployment

・In order to obtain the type certificate of the Japan Marine Industry Association, field trials are currently underway at Hikari, Kitakyushu City.
・After obtaining certificate, a 9 kW multi-lens wind turbine applicable to FIT will be introduced into the domestic market. It is scheduled for April 2018.
・We are aiming for low-cost, high-performance wind turbines that are cheaper than any other type. In manufacturing, we will cooperate with manufacturers of machinery and processing technologies, generators, controllers, and plastics manufacturers of blades and air collectors.
・In sales, we will cooperate with companies ranging from retailers to the leading ones specializing in renewable energy business.

■Corporate profile

Address 〒816-8580
GIC FS502, 6-1, Kasugakoen, Kasuga, Fukuoka
http://www.riamwind.co.jp/
Query TEL 092-501-8578 or Website.

Number of employees : 7
Capital :
15million 500thousand yen
Year of foundation : 2012
Representative :
CEO Yuji Ohya

■Outline of business

Wind condition forecasting consultant
Production and sales of small wind turbines: 1 kW, 3 kW, and 9 kW multilens machines

■Patents on the product

In-house Patent No. 6128575 of Multilens Wind Vehicles (Cluster Wind) dated April, H29.

Technological Planner Inc.

Optimal for recharging ultra-small EVs! Local consumption of renewable energy

Blue-sky outlet, a stand-alone power supply system

◇Features of a blue-sky outlet

This product is a recharging station developed for ultra-small electric vehicles, which is expected to become popular in the future, as a new convenient means of transportation in the region that saves energy in transportation and improves the quality of life and transportation. The main feature of this system is the ability to store electricity from renewable energy sources and use the same AC100V of electricity as a commercial power source. This system is also an effective power source for emergency power supplies.

◇ Local production and local consumption of energy

The storage capacity of the systems is up to about 15kWh (five-panel type), and can fully charge approximately 2.5 units of ultra-small electric vehicles! All the AC100V output from the outlet is made of renewable energy, enabling local energy production to be consumed locally. Since the output power supply is sinusoidal, precision equipment can be used, and it is very effective as an emergency power supply.

◇ No CO_2 emissions during operation!

Eco-friendly electric vehicles can be driven by eco-renewable energy, enabling transport infrastructure with zero emissions that does not emit CO_2.

Blue-sky outlet

Management strategy / Vision

●Our strengths

The company's greatest strength is its ability to engineer manufacturing in a comprehensive manner. This technical group of engineers with various experiences in the fields of design and development, production technology, and maintenance and inspection of automobile and electrical machinery can solve a variety of customer issues in manufacturing.

We also focus on developing human resources and creating an environment in which engineers can play an active role in creating a prosperous society of the future.

●Future business deployment

At present, a "blue-sky outlet" is provided to businesses that use ultra-small electric vehicles for collection and delivery and to remote islands that use them as tourist rental cars.
In a variety of ways in the future
We will take prevailing small electric vehicles as our target market and actively introducing our products to isolated islands seeking for local revitalization, tourist destinations, and municipalities.

■Corporate profile

Address 〒871-0015
404-11, Ushigami, Nakatsu, Oita
URL http://www.tplan0301.com
Query TEL: 0979-53-8880
FAX:0979-53-8382

Number of employees : 17
Capital : 4 million yen
Year of foundation : 2006
Representative :
Representative Director
Mitsuru Terashita

■Outline of business

・Engineering
(Design and Development, Production Technology, Inspection and Maintenance)
・Development business
(Product and Facility Development)
・Ecotourism business
(Ultra-compact EV rental car)

ZEPTOR Asia Corporation

"Small, light, high-capacity" using three-dimensional composites
Development, manufacture, and sale of next-generation lithium-ion batteries

Target Markets and Their Trends

・In recent years, secondary batteries have been used in a wide variety of applications, including mobile terminals such as smartphones and laptops, mobile power sources such as drawones, electric scooters and electric vehicles, and stationary storage devices that store renewable energy from wind and solar power generation.

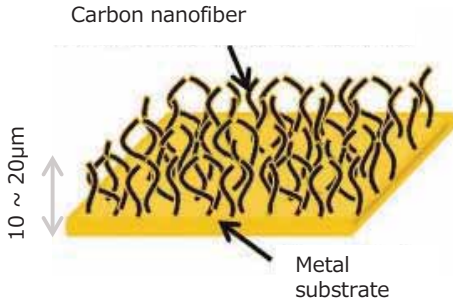
・Going forward, there is a need to make rechargeable batteries more compact and lightweight, while requiring safe batteries that can provide power for a long period of time.

ZEPTOR's core technologies and applications in rechargeable batteries

・Zeptor has been developing new composite materials by utilizing the semiconductor manufacturing processes cultivated over the years. We have succeeded in developing composites with an unprecedented three-dimensional structure by embedding carbon nanofibers (CNFs) on metal substrates (or metal foils) using electroplating processes based on high-throughput Roll to Roll methods. (upper right panel)

・The composite material with CNF embedded on the copper foil has excellent electrical and thermal conductivity, and is expected to be applied as a functional material with a high surface area due to the three-dimensional structure.

・When applied to lithium-ion batteries, the battery capacity can be about twice as high as that of conventional graphite active materials by combining them with an active material with a high electric energy capacity density as a current collector for the negative electrode. Furthermore, the high thermal conductivity derived from the three-dimensional structure of CNF makes it a safe battery. (lower panel on the right)



Laminate-Type Cell Battery Samples

Management strategy / Vision

●Background

・Zeptor Corporation was established in 2009 in the U.S. Silicon Valley by three engineers spun out from Intel Corp. We will develop fuel cells and secondary batteries based on semiconductor processes.

・As of 2017, the Japan Innovation Organization (INCJ) has become a leading investor and investment comes from several Japanese subsidiaries.

・ZEPTOR Asia Co., Ltd. was established in Fukuoka in 2014 as a subsidiary in order to utilize geographical advantages in the lithium-ion battery market, with Japanese manufacturers of advanced materials and equipment as well as Asian manufacturers of battery assemblies coming into sight. We are leading the mass production of negative electrode developed in Silicon Valley.

●Future development of business

・With the aim of independent mass production of copper foil-CNF composites developed and patented by Zeptor as current collectors for anode electrodes, we will outsource the production and assembly of batteries to existing battery manufacturers.

・By embedding CNF in metal materials, we aim to improve the properties of new functional composites. In areas other than batteries, we will contribute to new industrial fields by improving the following characteristics.

・Mechanical strength and wear resistance
・Electrical conductivity
・Thermal conductivity
・Increase in specific surface area (increase in catalyst support efficiency)

■Corporate profile

Address 〒810-0041
2-6-11, Daimiyo, Chuoku, Fukuoka, Fukuoka
URL http://www.zeptoco.com
Query TEL 092-737-2356 or Website.

Number of employees : 3
Capital :
10million 600thousand yen
Year of foundation : 2014
Representative :
President
Ryuzo Higashihara

■Outline of business

Development and Mass Production of CNF Three-Dimensional Composites
Development and design of cell packs for lithium-ion batteries in accordance with their intended use

■Patents on the product

Patent No. 5799187 and Patent No. 585858510
Patent No. 5819819 and Patent No. 5941210

Kyusyu Nanotec Optics Co.Ltd

The world's first reverse type and heat blocking type are line up.
Miyo-Film® Highly Functional Film Sheets

What is a highly functional film sheet?

A transparent film sheet that can control transparency and cloudiness with electricity. It has high convenience and applicability and can be used in a variety of scenes, including businesses, events, vehicles (automobiles, aircraft, trains, etc.), stores, and private homes.

Expanding Applications

In addition to instant switching of transparency / cloudiness with power ON / OFF, image projection and toning are also possible. In addition, although ordinary products are "transparent at the time of power distribution", they are also offered in the reverse type (the world's first) with "non-energized: transparent" and the type achieving a thermal cutoff ratio of about 90%, and the applicable range is great It is spreading.

To the top runner, with the thinness of the highly functional film sheet

Similar product is generally about 400 μm thick, but it is overwhelmingly thin, 120 μm thick. In addition, we have established positions that do not allow other types of follow-up, such as speed of response and transparency. The technology has already been proven to be superior in many respects, as it is moving toward supplying it to major Japanese and overseas aircraft manufacturers.

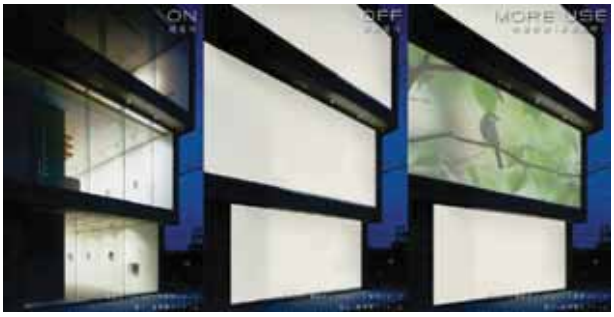


Image of use
From left, clear to white turbidity to video projection
※Cooperation: Takao Shiotsuka, Atrie

Haze Rate (%)	95.6(OFF) 4.5(ON)
Total luminous transmittance (%)	86.4(ON)
Parallel Transmission (%)	1.5(OFF) 79.0(ON)

Optical property
※Specimens (100 mm, films only), 25°C, 50% RH
※Values are actual values, not guaranteed values.

Management strategy / Vision

●Background

In 2004, we established a company to optimize polymer and liquid crystal composites and realize the world's only continuous Roll to Roll production method for liquid crystal films. Subsequently, we have succeeded in commercializing a monochromatic liquid crystal film using dichroic dyes and a low-voltage liquid crystal film driven at 30V or less. In 2011, we continued R & D and commercialization of R-PDLC(Reverse-Polymer Dispersed Liquid Crystal, which is the basis of the Liver Type.

In addition, we possess technologies related to both the surface of machinery and equipment as well as LCDs.

●Future development of business

The scope of application has expanded beyond the original assumptions of the company, and we are asking that it will be connected to a number of application scenes.

For example, in Europe and the United States, applications for wall-mounted TVs (usually wall/transparent; base color/black when TVs are used) are also considered. Research is also underway on glassed devices that improve physical performance.

■Corporate profile

Address 〒879-1504
8574-2, Oga, Hiji-machi,
Hayami-gun, Oita
URL http://www.kyunano.jp/
TEL 0977-72-3315
FAX 0977-72-3316

Number of employees : 20
Capital : 10 million yen
Year of foundation : 2004
Representative :
Chief Executive Officer
Junichi Baba

■Outline of business

R & D, production, and sales of functional liquid crystal films

■Patents on the product

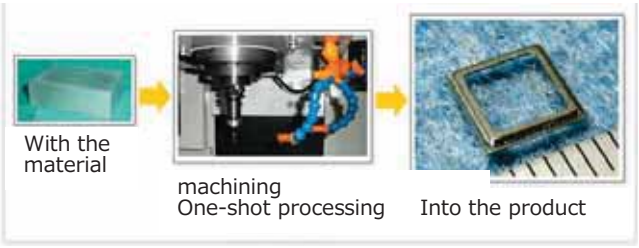
Patent No. 4387931/Polymer Network Liquid Crystal Display Device, and methods of preparation thereof, Patent No. 4414866/UV Exposure Device, Patent Application 2009-048327/Liquid Crystal Blind Device, and methods of use (International Patent)

Kirishima Seiko Co.,Ltd.

Materials are finished into products by processing parts in a single step.
"New construction method curve cutting method"

Features of the new method curve-cut method

It is characterized by a machining method that is carried out in only one step using our development method "Curve Cutting Method" (Material→Machining processing→Finishing processing). Compared to the conventional processing (materials, caulking, wire processing, flat grinding processing, machining processing, and finishing processing), we realized a reduction of production processes, reduction of material waste, stabilization of quality, and realization of a short delivery period.



Provide parts in a short time

Features of the technology that supports services

Our company specializes in microfabrication of difficult-to-cut materials (Ni alloys such as KOVAR 42 and 50Fe Ni, SUS materials, aluminum, OFHC, etc.). In recent years, we have been advancing to medical-related fields to improve technologies and reduce costs.

Comparisons and novelty with other companies' technologies

Conventionally, various machine tools were used to process parts, which required a lot of processing time and cost.
By using our curvecut method, we can provide machined parts to users with short delivery time, low cost, and high quality.

Curve-cut application

Management strategy / Vision

●Background

We are good at microfabrication with difficult-to-cut materials as precision metal processing (optical communication, semiconductor, medical, space and aviation). In December 2008, we acquired the approval of the Kagoshima Prefectural Governor 's Management Innovation Plan based on our unique curve - cutting method. By enabling single-part machining of parts from materials, we offer machined parts with short delivery time, low cost and high quality to users. In addition, we are acquiring ISO (quality and environment), raising trust and credibility as a theme, and although it is a young company of eight years of establishment, we are continually striving to acquire market share by widely publicizing the technological capabilities with high processing difficulty.

●Future business deployment

1、Iimprove processing technologies.
2、Keep in mind the "quality" "delivery date" "cost" in order to always satisfy our customers.
3、Continuously pursue and improve the effectiveness of QMS.
4、We constantly make improvements in processing technology to maintain and maintain reliable "quality".
We will carry out business development with the above motto. Also we will make efforts day and night so that we can contribute to the local community, especially by starting to improve customer's desired quality and processing technology.

■Corporate profile

Address 〒899-4303
918-7 Kokubu,Kawahara,
Kirishima,Kagoshima
URL http://kirishima-seiko.jp/
Query TEL: 0995-73-4311 or
Website.

Number of employees : 23
Capital : 10 million yen
Year of foundation : 2006
Representative :
Representative Director
Tamotsu Nishishige

■Outline of business

Precision metal processing industry (semiconductor component processing, optical communication component processing, other micro processing, etc.)

■Patents on the product

ISO90014001(2011 12)

Crucial Cooling Performance Co., Ltd.

Design and sale of high-brightness LED products and design of high-performance heat dissipation systems

Contributing to society using "heat" as a key word (FGHP light)

Application features of products and services

By using laminated type vapor chamber FGHP® as LED mounting substrate, this product realized significantly higher brightness than conventional product. This is the first LED lighting in the world that was able to be applied to the field of ultra high brightness which could not be advanced with conventional LED lighting.

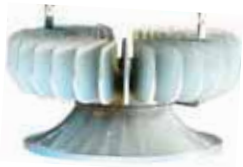
FGHP lights

Features of technologies that support products and services

FGHP® is the core technology that could finally be put to practical use by finding support from Kagoshima prefecture, Ministry of Economy, Trade and Industry, NEDO, etc. at various stages of research and development. The technology is recognized as "the world's best ability to escape heat" in the world-wide magazine of Thermal Transaction Society (Applied Thermal Engineering, vol. 104, 2016, pp. 461-471). The core technology makes it possible to solve the problem of heat generation which becomes particularly noticeable at high density mounting and realize energy saving by improving device operation efficiency and improvement of reliability by suppressing device temperature.

Comparisons with other companies' technologies & Novelty

The FGHP light can also be applied to scenes where the light does not reach because the brightness is insufficient in other manufacturer's LED products (adoption example: replacement of ultrahigh brightness mercury lamp).
In addition, because of its high luminance characteristics, it is possible to irradiate a wide range with high illuminance when illuminating near distance, so it is possible to dramatically reduce the number of lamps from mercury lamp lighting, and it is possible to drastically suppress both initial cost and running cost Case study: Made from 24 mercury lamps in high school gymnasium lighting to 6 FGHP lights etc.).



FGHP light (wide-angle type)

Management strategy / Vision

●Background

We are a venture company from Kagoshima University and established a company (September 9, 2011) against the backdrop of adopting NEDO "leading industrial technology creation project" in FY2011.

We are working on aiming at designing high performance heat dissipation system with FGHP® which is a laminated type vapor chamber as the core technology, and aiming to assist customers' advancement and limit breaking. In case

It is also our company's mission to contribute to the realization of an energy-saving society through social implementation of FGHP® applied products

●Future business development

Until now, by using FGHP® as an LED substrate, high-density packaging has been realized, with the advance of high brightness and the limit breaking down to adoption in areas where conventional LED lighting could not advance. Looking ahead, we are aiming to help you achieve sophistication and limit breaking of more customers' products through the development of laterally developed products of FGHP® light source substrates and the development of high-density packaging of power electronics.
In addition, we will also contribute to energy related fields based on advanced use of "heat".

■Corporate profile

Addres 〒890-0035
5-51-22 Takeoka, Kagoshima, Kagoshima
U R L
http://www.crucialcoolingperformance.co.jp
Query info@crucialcoolingperformance.co.jp

Number of employees : 1
Capital : 500thousand yen
Year of foundation : 2011
Representative : Representative Director Kei Mizuta

■Outline of business

Marketing of FGHP lights and designing and marketing of heat dissipation systems for electronic devices

■Patents on the product

U.S. Pat. Nos. 6,128,563 and 6,183,632
Many things

Try Tech Co., Ltd.

Optimum spraying = Longer parts life by applying tragers

TRYTEC Trarga, a global-changing coating

Application and characteristics of the product

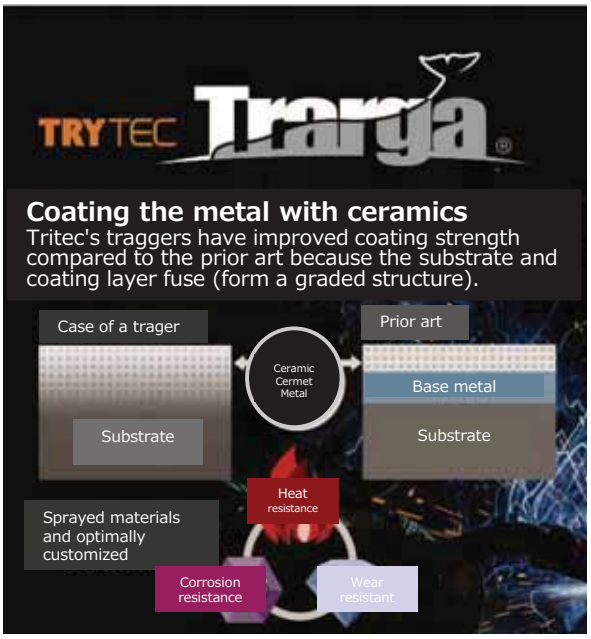
For products used in environments requiring heat resistance, wear resistance, and corrosion resistance, **plasma spray coating technology is provided**.

Features of Technologies Supporting Products

With selecting proprietary spraying materials that are compatible with the environment, **high functionality and prolonged lifespan can be realized**.

Comparison with Other Companies' Technologies

With melting base and coating layer, **the coating strength is further improved.**
(We've got actual achievements)



Management strategy / Vision

● Background

・Our management philosophy is "making impossible possible." This is a company that solves the problems of customers (especially on-site) and we are making every effort to visit the site directly.
・Established the Intellectual Property Section with the Intellectual Property Strategy as the mainstay of management.
・Our product--rotary PC burner (which has been patented), has been well received and won the Kyushu District Invention Award, Oita Prefecture Business Plan Grand Prix, and Oita Prefecture Business of the Year Award.

● Future development of business

・We will propose a TRYTEC Trarga that offers optimal spraying to companies and other fields where improvements in the heat resistance, wear resistance, and corrosion resistance of products and components are an issue.
・Please contact us for issues (needs) in various industries. We will work together to solve these issues.

■Corporate profile

Address <Head Office>〒870-0278
1-3-42, Aosaki,Oita,Oita
<Nozu Plant>〒875-0222
974-7, Oaza Yoshida, Notsu-cho, Kusunoge, Oita
U R L http://www.trytec-japan.com
T E L 097 578-6156
(Head Office: Technical Sales Dept.)
E-mail info@trytec.jp

Number of employees : 25
Capital : 10 million yen
Year of foundation : 2005
Representative :
Representative Director
Hiroshi Takesaki

■Outline of business

Heat and abrasion resistance treatment, and plasma spray treatment
Diffusion infiltration treatment, shot blasting treatment
Drill rod for blast furnace pig iron, blast furnace PC
Burner and self-drilling lock bolt
Civil engineering materials and 3-roll roll threading

BRIGHTEC co.,LTD

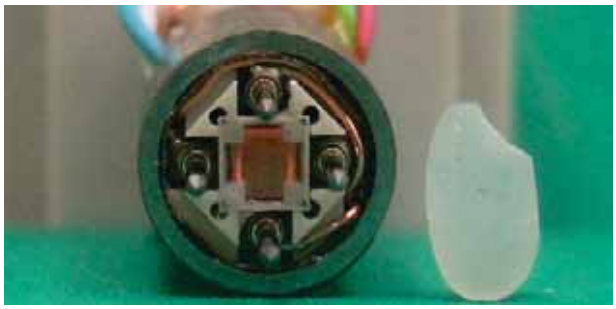
The world's first device for measuring magnetic properties of motor machines

Kyushu Economy, Trade and Industry Director's Award!

Vector Magnetic Property Visualizer

Magnetic property measuring equipment such as a two-dimensional single plate magnetic tester

We are developing, manufacturing, and marketing magnetic property measuring equipment such as vector magnetic property visualization device, stress-loaded single-plate magnetic testers, and two-dimensional single-plate magnetic testers. We provide magnetic property measurement technologies characterized by processing miniature magnetic sensors and speeding up measurements using FPGA (Field-programmable gate array). We also conduct consigned magnetic property measurements using this device.



Vector magnetic sensor

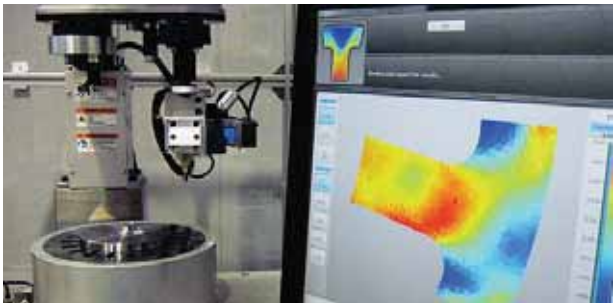
Utilize the Minimum Vector Magnetic Sensor

In this system, we visualize the degree of loss in the form of vector quantities of the magnetic characteristics of motor machines, so as to determine the cause for loss and reduce it. This method is based on a minimum H-coil sensor and combines a penetrating probe sensor for magnetic flux density measurement in the X and Y directions. The development of "minimum vector magnetic sensor" with core technology makes this happen.

・Magnetic flux density: probe method (probe spacing 3.5 mm)

・Magnetic field strength: H coil method (H coil width 2 mm)

※Not only the motor but also the transformer can be measured.



VECTOR MAGNETIC CHARACTERISTICS VISUALIZATION APPARATUS

Management strategy / Vision

●Background

Starting as housing equipment manufacturer of faucet fitting assembly in 2011, we are expanding our business to areas including the premises work for major steel manufacturers, control panel assembly and wiring, and we are now conducting our business in four areas: the system business, the mass professional business, the vehicle business, and the RC business. We have established a position as a comprehensive engineering company in the electronics field.

●Future business deployment

Based on the achievements, the department developing consumer electronics manufacture is using compressors to measure motors. It is believed that the conventionally one-dimensional magnetic characteristics are made "visible" in the form of vector quantities, so that the magnetic flux density, magnetic field strength, iron loss distribution, and the like can be accurately and efficiently grasped, which greatly helps improve the efficiency of motor machines. In the future, we plan to develop sales in the automotive industry. In addition to this, we expect to play important roles in a variety of fields.

■Corporate profile

Address Head Office/Head Office Factory
〒870-0107 739-3 Kaiwara,Oita,Oita
Mukaibaru Plant 〒870-0903
1-2-53, Mukaibaru Oki, Oita, Oita
URL http://btec-net.co.jp/
Query Head Office TEL 097-558-1125

Number of employees : 100
Capital : 33 million yen
Year of foundation : 1997
Representative :
Representative Director
Kiyofumi Ueki

■Outline of business

System business, mass professional business, vehicle business, RC business, and technical development

■Patents on the product

Patent No.5399157
Patent No.5896563

Principle Co., Ltd.

To a new concrete admixture for volcanic effluents (silus)
Improvement of strength, durability, and fluidity of concrete
『Volcanic glass fine powder』

Characteristics of volcanic glass fine powder

Volcanic ejectors (silas), which are unutilized resources in Japan, are used as raw materials, from which volcanic glassy is selected and pulverized.
Compared with conventionally used silica fume, this can help to achieve concrete admixtures enjoying equal or higher strength and fluidity with smaller amount of chemical admixtures.
As admixtures are essential to various construction work, this volcanic glass fine powder can be used as a sustainable resource.

Features of Manufacturing Technology

In Japan, we have enormous reserves, and we are producing fine volcanic glass powders with an average particle size of about 1 μm by classifying and pulverizing the silas ejected by volcanoes widely distributed in South Kyushu.

Novelty compared with other companies' technologies

Compared with silica fumes, there is a decrease of CO_2 emissions during manufacturing and transportation, enabling production with lower CO_2 consumption.

Volcanic glass fine powder

Management strategy / Vision

●Background

Since volcanic ejectors such as silas are porous and have high water permeability, they may cause sediment collapse when absorbing moisture and are not suitable for planting. Therefore, the local government was also concerned with the countermeasures, and we have managed to prove whether it could be effectively used as an industrialized material through trial and error.

●Future business deployment

We aim to establish a mass production system.
We will approach cement manufacturing companies and raw concrete manufacturing companies to contribute to the prolongation of concrete life by improving performance and durability of concrete admixtures.

■Corporate profile

Address 〒890-0063
1-17-8,Kamoike,Kagoshima,
Kagoshima
Query TEL: 099-258-3006
FAX: 099-258-3106

Number of employees : 8
Capital : 15 million yen
Year of foundation : 2007
Representative :
President & CEO
Kazuro Higashi

■Outline of business

Processing of volcanic jets, production, processing and sale of silus balloons

■Patents on the product

Method for producing a high strength vitreous balloon according to U.S. Pat. No. 5,194,202

Fusion Techs Corporation

Creation of industry by pulsed power, the third power after DC and AC power

Industrial "pulse power supply" for creating innovation

What Is Pulsed Power?

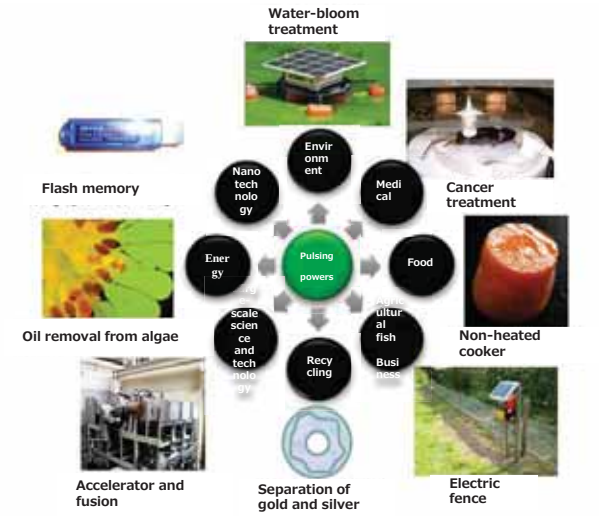
If you take out energy that uses microwave oven for 1 second in an extremely short time of 10 nanoseconds, it will be the power that is instantaneously consumed in Japan. If it is about 100 MW, 1000 pulse power can be generated per second. The energy which generate huge electric power with low cost is called pulse power. We have developed a highly repetitive, reliable, compact and lightweight pulsed power supply that can serve the industry.

Applications for pulsed power sources

Application fields using pulsed power supply are widely deployed, including environment, food processing, medical treatment, oil extraction, agricultural fishing, sterilization, large science technology. Actually, pulse power supply is used for flash memory production, electric fence etc. As overseas military use, although it is a one-shot operation, a huge pulse power supply is being developed.

Innovation and Industry Creation

Pulse power, the third power after DC / AC power, has the possibility of creating many innovations and aims to create industries that respond to each technological innovation.



Wide range of applications for pulsed power

Management strategy / Vision

●Background

As a venture company of Kumamoto University, the company developed a compact and lightweight pulsed power supply that can be used in industry, capable of high repetitive operation and high reliability. Using this technology, we are striving to create an industry in the field of pulsed power applications, for example, by purifying lakes and marshes with a new non-heated cooker, water-bloom treatment equipment, new manufacturing equipment, and removing oil from microalgae.

●Future development of business

In cooperation with the Sumatsu Electronics Manufacturing Co., Ltd., we are selling a variety of pulsed power sources that we have developed and custom products that meet the demands of companies. Many universities, laboratories, and companies operate pulsed power supplies, each of which is conducting research and development on different pulsed power applications. In the future, we will make every effort to develop pulsed power into the rice industry by creating a number of innovations.

■Corporate profile

Address 〒861-1115
2053-6 Toyooka Koshi,Kumamoto
URL http://fusiontech.jp/
Query 080-1714-9080

Number of employees : 7
Capital :
1million 500thousand yen
Year of foundation : 2010
Representative :
President and Representative director Hidenori Akiyama

■Outline of business

Development of pulsed power sources and their applied research and development, joint research and development with various companies, voluntary product development, etc.

■Patents on the product

Patent 6032523 Unheated Cook
Patent 39494454 algicidal device

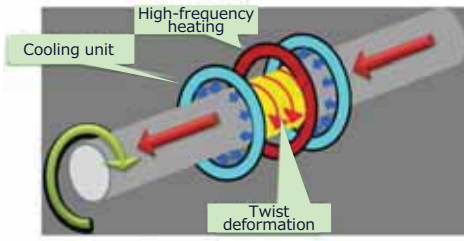
RNASCIMETALLI.Ltd

Processing heat treatment process for improving the performance of commercially available metal bars

RMACREO technologies

What Is RMACREO Technologies?

① Restrictions on environmental problems such as hazard, recyclability, and allergies have been increasing for element addition, which was indispensable for improving the performance of metals. Therefore, we realized significant improvement only by processing process which applies local heating and gives twist deformation.
② It is the world's first technology that gained patents in various countries around the world. A number of RMACREO facilities have already been introduced to major domestic companies.



Summary of RMACREO Techniques:
(The combination of high-frequency heating and water cooling achieves local torsion, and lateral movement achieves continuity.)

Realization of metal grain refinement by local heating and continuous twisting

This is a high-continuity mass-production technology, and is effective for almost all metal materials. RMA is a metal renewal technique that overcomes the walls of metal materials that were considered to be critical.
In addition, we have achieved high-performance metal parts with high productivity and mass productivity in combination with a mold heating apparatus for plastic processing using patent technology.

Examples of RMACREO devices:
(Diameter 50 mm×4000 mm can be processed)

Comparisons and novelty with other companies' technologies

There is no other company technology that can be compared at present.
Although RMACREO is thought to be a grain refinement technology with mass productivity, in fact it is a technology that can perform heat treatment at the same time.
With RMACREO as the foundation technology, we are still continuing to develop applied technology.

Management strategy / Vision

●Background

In order to realize a human-friendly high-performance metal material, we developed a high-mass productivity low cost metal renaissance technology that many people can use.
Upon development of this technology, it was adopted as "University Creation Venture Creation Support" by the ministry of Education, Culture, Sports, Science and Technology.
RMACREO [Mold heating device] (patented) developed for the purpose of maximizing the effect of the technology has a great use record as it has great effect on forging of commercial materials.

●Future business deployment

As an application, application to transportation equipment such as aircraft and automobiles and mold materials, which are required to achieve high performance such as weight reduction of metal materials, has progressed, and mass production has been rapidly achieved.
Since most metallic materials are effective, we are working in cooperation with many users to penetrate RMACREO and mold heaters.

■Corporate profile

Address 〒810-0022
2-5-39-801, Yakuin Chuo-ku
Fukuoka, Fukuoka
URL http://www.rinascimetalli.co.jp/
Query Website.

Number of employees : 2
Capital : 3 million yen
Year of foundation : 2005
Representative :
CEO Dr. Katsuaki Nakamura

■Outline of business

Manufacturing and sales of RMACREO devices and technical development contracts
Technology development contract for plastic working (forging, etc.) and production and sale of mold heating equipment

■Patents on the product

U.S. Pat. Nos. 4,002,273, 5,978,533, etc.

KIT-CC Co., Ltd.

Ink-jet technology is used to innovate technologies and contribute to society

Development of high-speed line-head printers using robotic head cleaning units

Introduction to High-Speed Ink-Jet Colgate Printers

Developing a high-speed IJ Colgate Printer on demand

1. The volume of packaging materials rapidly increased due to the expansion of Net Sales and the Sixth Industry.
2. Image quality improvement is accelerated from simple boxes to "attractive paper machines" and "display cases".
3. Use of a line head to realize full-color printing at a speed of 100m per minute.

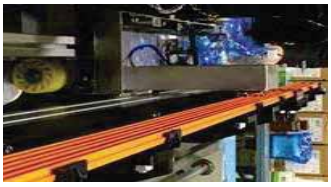
High-speed IJ printer

Space saving/cost reduction using cleaning robots

Printing apparatuses using line heads are becoming larger and thus more space-saving and environment-friendly cleaning in terms of equipment maintenance is a challenge. No wiring and tubeless is realized (patent filed).

"Washable", "Removable", and "Environment-friendly"

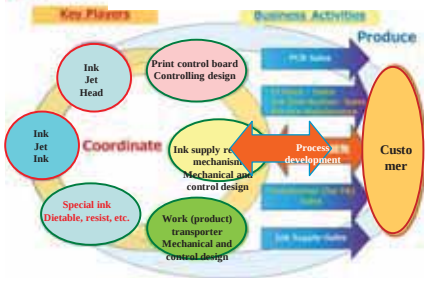
For maintenance, in the field of pharmaceuticals and foods using edible inks, a manageable hygienic environment is necessary. The first unit in the industry, which can select and clean components.



Power supply

Maintenance

KIT-CC business scheme



Management strategy / Vision

●Background

Aiming to "create a new businesses using Ink-Jet technology to contribute to the society", the company was established. The company gathers technicians from major companies, and work together with creative partner companies, which boast high Ink-Jet technology, to develop technologies that solve a variety of challenges.

At the same time, we will project the ink jet process from the practical development stage, share the roles including its production, establish world-first and industry-first custom devices and processes, and differentiate ourselves from other companies mainly in the niche market and acquire intellectual property .

●Future business deployment

Ink jet technology is a process method for realizing functions required by materials and ink. Development in industrial applications is primarily targeted at "niche markets", i.e., printing on non-paper materials. The future development fields are as follows.

1. Pharmaceutical and food fields using edible inks
2. Organic electronics field
3. Printing fields, mainly for non-absorbing media

We are aiming for No.1 with "washable", "removable", and "environment-friendly" ink-jet technologies.

■Corporate profile

Address 〒860-0812
210, Incubator with Kumamoto University Cooperation, 3-14-3, Minamikumamoto, Chuou-ku, Kumamoto, Kumamoto
URL http://www.kit-cc.net
Query TEL 096-273-7601 or Website

Number of employees : 8
Capital : 1 million yen
Year of foundation : 2015
Representative :
Representative Director
Kenji Tomita

■Outline of business

・Use ink-jet technology
Concepts, Design, and Manufacture and Sales of Printing Machines
・Technical consulting related to the above

■Patents on the product

Cleaning apparatus and cleaning method
Filed in the Ink Jet Recording Apparatus

Mowa Solutions Co., Ltd.

To reduce the cost of semiconductor testing processes
Image sensor testing solution SE-MIPI

Added value of the mowa

1. Development of hardwares such as measuring instruments and jigs for semiconductor testing
2. Development of tester application software and test programs
3. Manufacturing technology of semiconductor mass production process, defect analysis technology, etc.

Solutions are provided in various forms, such as development, support, or entrusted development of products themselves.

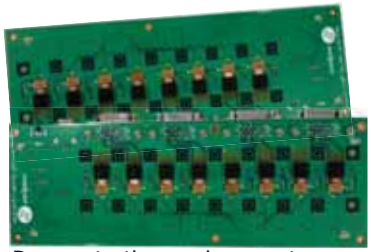
Features of SE-MIPI image capture option

An instrument for testing SE-MIPI image sensors, which allows 32 or more measurements at a time. Support for Sub-LVDS and MIPI D Phy protocols. In addition, we have achieved a low-cost test solution while maintaining test speed by using a low-cost high-speed image processing server.

Development of mowa

In addition to the above-mentioned SE-MIPI, we have also developed tester equipment such as device power supplies and pattern generators, and we have been developing new equipment in accordance with customer requests. Using these experiences, we will provide solutions to a extensive range of customers more than semiconductor manufacturing companies.

Image Sensor Capture Option [SE-MIPI]



Demonstration environment
Simultaneous measurement of 16 or more image sensors

Management strategy / Vision

●Background

In recent years, the semiconductor industry is thriving worldwide. MHI offers technological solutions, proposals for cost reduction, semiconductor testing, measurement support, and maintenance services to its major customers of semiconductor manufacturing companies.

We are vigorously developing our products. We believe that our services and optional equipment will be recognized as a new business model in the semiconductor testing process.

●Future business deployment

Our head office was located in Kumamoto Shikoku, Asaki District, Kumamoto Prefecture, and its business office was located in Yamagi Town, which was affected by the Kumamoto Earthquake in 2016. Fortunately, we had little damage to our company itself, but we had witnessed a great deal of damage. Therefore, we are considering and developing new solutions using our technology as new businesses. In the future, we will continue to expand our business of existing products and develop products that detect disasters in advance by using the new business patents that are being submitted, so as to make our company a meaningful existence by making contribution to the world.

■Corporate profile

Address 〒861-2202
Yume Chousen Plaza 21 office 1,
2081-10, Tahara, Mashikimachi,
Kamimashiki, Kumamoto
Query TEL 090-7265-6605

Number of employees : 3
Officer : 2
Capital : 8 million yen
Year of foundation : 2015
Representative :
President Tomokazu Tamaki

■Outline of business

In order to improve the performance of semiconductor testers, we are developing and selling equipment and developing tester applications.

■Patents on the product

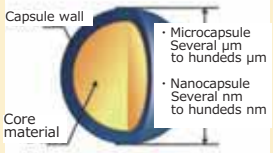
There are no patents related to this product, but there are patents that have been applied for separately.

MC Lab inc.

Open up tomorrow with microcapsules

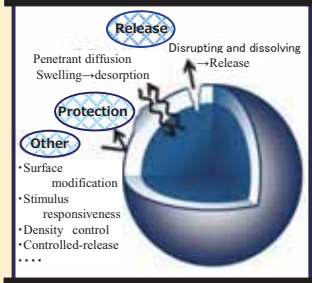
MC Lab Co., Ltd. is a company aiming to contribute to society through environmentally friendly high-performance microcapsule development technology

What is the microcapsule?

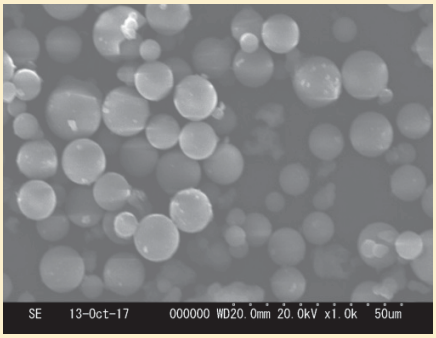


A liquid or fine powder is put
in the core substance,
In the encapsulated item,
Micron order items
It is called microcapsule.

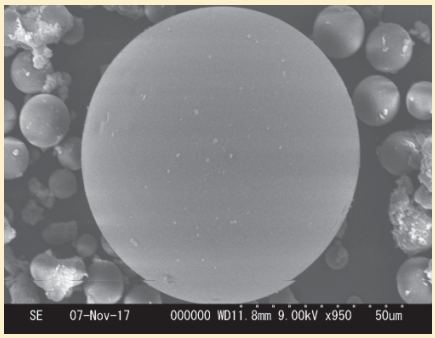
Advantage of microcapsules



Granting functionality
· Improvement of physical properties:
powderization of liquids, improvement of
mixability, shatter-proof
· Shielding effect: Masking of taste and scent
Mixing prevention chemicals can be compounded
Reduction of side effects
· Improvement of safety: divergence · moisture
absorption · dispersion prevention
Sustained release: release of encapsulated
substances to the outside over time
Spatially controlled



Oil-containing microcapsule SEM



Oil-containing microcapsule SEM

Example of products (MC: microcapsules)

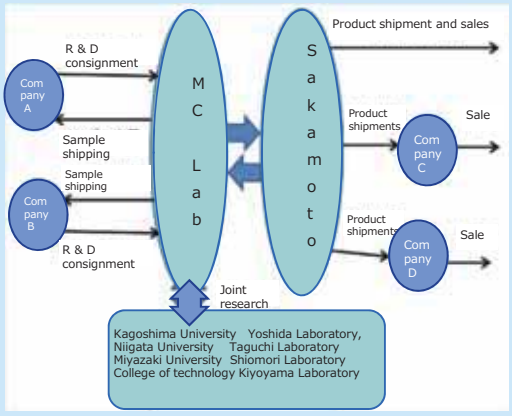
Scent-containing MC for long-lasting scent
· Formulation MC of soil smoking with contaminant ingredients
· Microbial inclusion MC useful for organic agriculture
· Nitric acid nitrogen removal denitrification bacterial inclusion MC
· MCs Including Golf Stud Satch Decomposition Bacteria
· Conditioning · hygroscopicity MC
· Heat storage MC
· Claw recovery MC for nail care
· Insect pheromone enclosing MC
· Water-proof special agent inclusive MC

Management strategy / Vision

●Background

Based on customer needs, based on Yasuo Habe, who is the president of MC Lab Co., Ltd. (Kagoshima University emeritus professor), with Professor Emeritus Professor Emeritus Professor of Kagoshima University, Niigata University, Miyazaki University, Tokyo Metropolitan College of Technology It is possible to study in a brain group by each laboratory and respond to the needs.

Furthermore, one-stop service is possible because mass production can be carried out by a cooperating company.



■Corporate profile

Address 〒890-0046
1-3-808,Nishida,Kagoshima,
Kagoshima
http://www.mc-labo.jp/
Query Website.

Number of employees : 3
Capital :
25million 500thousand yen
Year of foundation : 2008
Representative :
President Yasuo Hatate

■Outline of business

Research and development of microcapsules
Mass production development of microcapsules
Mass production of microcapsules

■Patents on the product

100 or more patent applications
30 or more patents

OPM Laboratory Co.,Ltd.

Parts made of metal 3D printers and contract manufacturing / prototyping of molds
Integrated Engineering of Metal 3D Printers

OPM250L, a hybrid-metal 3D-printer

High performance machine with 500 W Yb laser and high precision machining function. We pursue stability that can be used in full scale at a mass production site and have overwhelming performance (speed / accuracy). By deploying the series, the model size can handle up to 350 x 350 x 350 mm at present, and we will promote application to further larger parts in the future.

OPM250L appearance

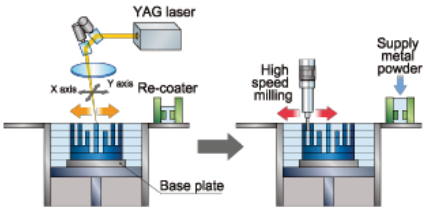
Hybrid advantages and comprehensive engineering

In addition to R & D operations from the beginning of the foundation, we have accumulated a lot of design and manufacturing databases for use in severe mass production sites, and have standardized construction methods.

We have achieved the molding efficiency improvement and the molding quality improvement in the 3 dimensional water pipe by the metal 3D printer method, and by integrating the gas vent layer (porous structure) and taking measures against molding defects, high quality Molded products are produced.

Next generation prototype molding service OPM Speed Lab』

It is the first service in the industry that can predict mass production performance from the evaluation stage. We have established a system that allows responses within half a day through simple procedures using a dedicated Web. The location is not only domestic but also China - Southeast Asia. Compatible resins are general-purpose, engineering plastics, super engineering plastics, etc.



Process image

Management strategy / Vision

●Background

The OPM Laboratory has been working on research and development of metal 3D printer technology since the early days, and has been working on this technology as a pioneer company.

Since fiscal 2014, the Sodic Group has jointly developed and introduced the Sodic metal 3D printer, the OPM Series, and operates it as the world's only metal 3D printer engineering service company with several international members.

Mass production processing centers (Kaga MPPC), which are "Metal Shaped Services Aircraft", have installed the largest number of metal 3D printers in Asia, and can handle large-scale cases. It is also presupposed that it might be a buffering function when the customers are in trouble with the capacity.

●Future business deployment

In addition to the aircraft and space development industries, which have already been in progress, 3D printer technology has entered the market for parts and molds, not the prototype market, but in the era in which it is used as a mass-produced part.

In this context, we are actively working not only in Japan but also in overseas markets. We want to cooperate with people aiming to use metal 3D printer technology for mass production sites.

■Corporate profile

Address 〒600-8815
B107, Kyoto Research Park Building
No. 3, 93 Chudoji Awatacho,
Shimogyo Ward, Kyoto
URL http://http://www.opmlab.net/
Query TEL:075-314-3446
or website

Number of employees : 32
Capital : 121 million yen
Year of foundation : 2007
Representative :
Representative Director
Kazuho Morimoto

■Outline of business

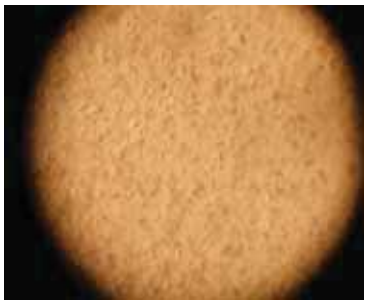
Research and Development of Metal 3D Printer Technologies
Design and production business
Metal powder material development business
Development of software dedicated to metal 3D printers
Support and consulting business
Others

PAT Co., Ltd. (Powder Application Technology)

Surface modification (surface modification) of powder
Coating uniformly on each nano-micron powder particle
Dedicated powder surface treatment for each user

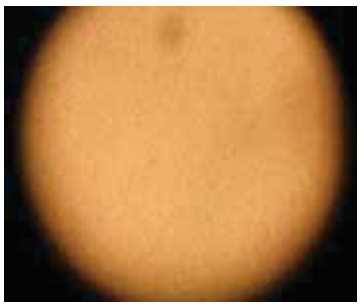
Application Features of Product･Services

1) Every nano-micron powder particle can be coated uniformly.
2) We have know-how to properly use drugs in accordance with the type of materials and powders.
3) Surface-treated powders are effective in improving the filling rate, flowability, dispersibility, and water resistance.
4) We support the enhancement of material characteristics by downsizing and upgrading the performance of our products.
5) It is widely used in heat radiation materials, sealants, ink-jet pigments, etc.



Average diameter of alumina particles 0.3 μm

[Surface of a mixture of untreated alumina and resin]



Coagulation of particles is conspicuous in untreated but smoothed by surface treatment.

[Surface modification of alumina and the surface of a mixture of resin]

Features of Technologies Supporting Products and Services

Using our proprietary mixing technology, this process reduces the dispersion of the surface area of the particles and is highly effective even at low additive levels. It is optimum for reducing errors such as gas generation and poor hardening due to drug residue.

Novelty compared with technologies of other companies

Unlike the sale of powders that are simply surface-treated, we are mainly engaged in entrusted processing, and we will formulate dedicated chemicals for each customer and cooperate with our customers to develop our products.

Management strategy / Vision

●Background

We have developed surface treatment technology based on the integration of powder technology in ceramics and organic chemistry, and are engaged in a wide range of activities from small-volume production to mass production.

・Management policies

Pursuing the world's best technology with the slogan”**No rival products and processes”.**

We have developed a composite material by uniformly dispersing and mixing fluorinated resin and inorganic powder to provide high heat-resistant heat-dissipation sheets and fluorinated resin dielectric materials.

●Future development of business

We have acquired a new factory to handle mass production of surface treatment of powders for heat loss control products and dielectric materials. Ceramic powders are manufactured in large quantities with our strengths of dispersion and low viscosity of powders of 100 μm or less in particle size and 1 μm or less.

We are pursuing further quality stability by enabling easy measurement of product variability, aging degradation, etc. during development with universities to evaluate new surface modifications.

■Corporate profile

Address 〒849-2305
91-115 Miyano Yamauchi-Machi, Takeo-City, Saga
URL http://pat-x.com
Query contact our Engineering Division or Website

Number of employees : 5
Capital : 8 million yen
Year of foundation : 2006
Representative :
President Sumihiko Kurita

■Outline of business

・Contract Processing of Powder Surface Modification Process
・Manufacturing and sales of fluorinated resin heat radiation materials
・Contract research for product development

CFP Inc.,

Automatic fire extinguishing system that does not require any human hands

Kesrobo® using home fire extinguishers

<Fire extinguisher changes>

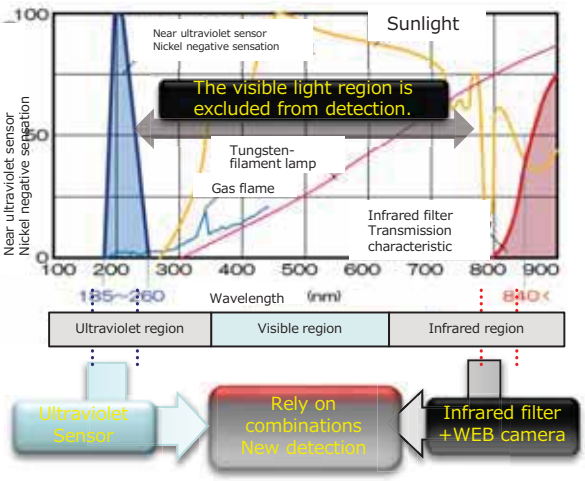
・ “Kesrobo®” is the combination of robot and fire extinguishers sold at the market.
・Inexpensive and innovative automatic fire-extinguishing system
・Fully automatic initial fire extinguishing system
Kesrobo protects your family and house from fire 24 hours 365 days.
・Thanks to the inbuilt fire extinguishers, water pipes are not required and installation and construction is easy.

<Change of social environment>

In recent years, residential fires have decreased due to changes in the elderly society・borderless society・residential environments, but the number of elderly victims who died in fires has increased year by year.

<Technical Features of Kesrobo®>

Figure 1: Sensor characteristics and visible spectrum band

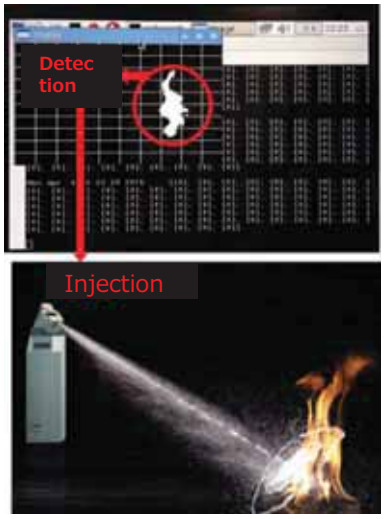


・ Camera and near-ultraviolet sensor combined (Figure 1)
Computers can detect fire source even in one candle and serve fire detection 24 hours, 365 days.
・Pinpoint injection to the detected fire sources (Figure 2)
・Emergency notification to any registrant.

Pinpointed Initial firefighting service

・Damage by fire is minimized by initial fire extinguishing.
・ Secondary damage is held to a minimum due to pinpoint injection.

Figure 2: Infrared image processing



Background of Emergency and Future Expansion

●Background

・Focusing his attention on fire prevention measures of conventional homes, Hanada, representative of the company, developed a fully automated fire extinguishing system with easy installation at low cost based on his experiences of sprinkler dry construction at the welfare facilities.
・ We have developed a computer-controlled initial fire fighting system and network linking system in cooperation with Kyushu Institute of Technology, Institute of National Colleges of Technology and National Institute of Technology, Kitakyushu College.
・We are selected and funded by “Fire and Disaster Prevention Research Support” project of Fire Equipment and Safety Center of Japan.
・Fire-fighting experiments have been conducted at the Hatsuta Seisakusho Co., Ltd.

●Future business deployment

・ We are seeking to ally with companies, which work on regional integrated fire prevention measures in agreement with our conception “one less residential fire and one less victim” .
・We want to reinforce fire-prevention measures for conventional homes, elderly people’s homes, apartments, small-scale stores and welfare facilities, which are not subject to legal regulation and are responsible for their own fire safety.

・With the utilization of IoT to ally with the local community , we want to promote activities to enhance the regional safety and security.

■Corporate profile

Address 〒810-0041
2-8-18, Daimiyo, Chuoku,
Fukuoka, Fukuoka
URL http:/kesurobo.com
TEL 092-707-2907
FAX 092-707-2908

Number of employees : 9
Capital :
12million 600thousand yen
Year of foundation : April 2017
Representative :
Representative Director
Hiromichi Hanada

■Outline of business

Development, manufacture, sale and maintenance of automatic fire extinguishing systems

■Patents on the product

U.S. Pat. No.5,889,999 “fire extinguishing system"
Trademark registration No. 5912815
Design Registered HANA17 1, HANA17 2

ciDrone co.,Ltd.

Refer to Survey and Logistics!

Large, versatile unmanned aircraft ci-X8

Product application features

In the future drone business, especially in the logistics and surveying fields, the weight that can be transported is important. To satisfy these needs, large-scale drone development is required.

Ci-X8 airframe diagram

Features of the technology that supports products

For the creation of large-scale drones, "drone analyzer" is used, which is jointly developed with the Okyo Prefectural Industrial Science and Technology Center. This allows you to obtain flight data without actually skipping the aircraft.
(Measurement of the number of revolution and buoyancy of various motors, etc.)
By this analysis, it is possible to perform appropriate airframe design based on numerical values.

Drain Analyzer Outlook Diagram

Comparison with other companies' technologies

Aircraft development based on numerical values, which is not available in other companies, can be performed.
In addition, there is an environment in which materials can be processed, and customization is available to satisfy customers' delicate needs.

Management strategy / Vision

●Background

Our main business is selling and developing drones. Apart from the development of large-scale airframes, we also conduct transactions with a wide variety of customers as DJI's legitimate agency, which is the world's largest drone manufacturer. In addition, we have developed rescue drones based on the concept of human life rescue and boats to dust pesticides in rural areas.

●Future business deployment

In the same way as in the surveying field that is currently in operation, we will develop an airframe that allows heavy goods to be transported faraway in the logistics field.
In addition, we will use drone analyzer to create an environment in which a wide variety of drones can be measured, and develop an inspection business.

■Corporate profile

Address 〒870-0823
2-5-60, Higashiomichi, Oita, Oita
URL http://www.ciDrone.jp
TEL 097-585-5630
Query Website

Number of employees : 7
Capital : 45million yen
Year of foundation : 2015
Representative :
President and
Representative director
Shunji　Ono

■Business outline

R & D, manufacturing, construction, maintenance, sales and export of unmanned aircraft or robotic control systems

■Patents on the product

Japanese Patent Laid-Open No. 2017-132461
APPARATUS FOR MEASURING CHARACTERISTICS OF AN UNMANDED AIRCRAFT AND UNMANDED AIRCRAFT EVALUATION SYSTEM USING THE SAME

EAMS JAPAN Co.,Ltd

(Old West Japan Kronos Co.,Ltd)

Worldwide drones revolution caused by unpublished USV

All categories of industrial drone school

USV water surface drone

Sea-sized large-scale automatic sailing unmanned research boat, rescue boat as well as herbicides, granules, liquid drug control agents for spraying rice, etc. 9 kinds of water drone are on sale

UGV land drone

We are also developing automated unmanned vehicles (UGVs) that can be used for automatic tracking of suspicious persons, pesticide distribution vehicles, 100 kg loads, vehicles that can operate for more than one hour, and entertainment.

UAV drone school

Our company is a pesticide spraying drone official school designated by the Japan Agriculture, Forestry and Fisheries Association. In addition to Oita city, there are training bases in Kagoshima prefecture, Miyazaki prefecture, Fukuoka prefecture. It opened in December 2016, and already 160 people acquired our license. Special training, surveying, inspection and other lessons are also conducted at the school dedicated airfield and staff in each field conducts training every week.

Management strategy / Vision

Lead in a Special Model

Development of equipment by developing a variety of drones (Unmanned Aircraft (UAV)) and developing school operations for design, sale, and maneuvering.
To proceed to the Blue Ocean, boats (Unmanned Surface Vessel (USV)) and underwater drones (UUV) were manufactured using the technology of overhead drone. Development and sale of unmanned auto-navigation boats, which are active in subsea marine surveys.

Future development and cooperation

We export to Japan and Southeast Asia, joint development with overseas companies, and cooperation agreement with the government. we have expanded our business not only as a manufacturer of drone, but also to a wide range of drone marketing with the aim of a domestic major drone manufacturer.

■Corporate profile

Address 〒870-1117
M104 In Oita Industrial Research Institute, 1-4361-10 Takaenishi, Oita, Oita
TEL 097-574-4500
Mail west.japan.kronos@oct-net.ne.jp

Number of employees : 4
Capital : 10 million yen
Year of foundation : 2016
Representative :
President and Representative director
Hiroyuki Mizobe

■Outline of business

All-category manufacturing and development makers
During school opening
Completion of educational facilities at sales agencies in Japan
Complete aerodrome dedicated to large-scale drone training

■Patents on the product

Design Rights Registration and Practical Model Rights, etc.

Next Technology LLC

It sniffs your leg and categorize the smell.
Toy dog (Odor measurement dog Hana-chan)

About the Hana-chan

This is a dog-type robot that incorporates an odor sensor. Separate smells with various motions!

Beginning!
Around this point

Sniffing at the Socks

Beginning of Measurement: Results in 3 Patterns

Snuggle

LV1 Good

LV2 OK

LV3 Bad

Faint

Management strategy / Vision

●Joint Company Next Technology
The next technology is a venture company that develops mechatronics products established by educators and students specialized in Kitakyushu. We conduct prototype production and development of various products by utilizing the built-in control and robotic technologies developed in our research. Please consult why "How do I have an idea but how to make?" and the plaguer!

●Future business deployment
We will also create a lot of robots from now on! it is expedient to rapidly prototype robots with new concepts. However, there are no people or funds that can be mass-produced. You can cooperate with companies who have robots built together!

■Corporate profile

Address 〒802-0985
5-20-1, Shii, Kokuraminamiku, Kitakyusyu, Fukuoka
URL http://www.next-tech.co.jp
Query info@next-tech.co.jp

Number of employees : 4
Capital : 1 million yen
Year of foundation : 2012
Representative :
President Takashi Takimoto

■Outline of business

We are working on prototyping and developing mechatronics products such as 3D printers and robots with the use of "Do you want to do" as a slogan?

iQPS Inc.(Institute for Q-shu Pioneers of Space, Inc.)

Observe the earth in real time! Ground decomposition function 1 m Weatherproof type

SAR (Synthetic Aperture Radar) Satellite for Earth Observation

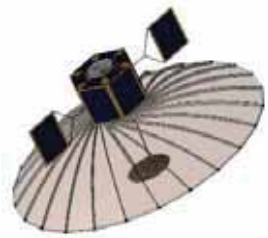
～We observe every part of the earth day and night, regardless of weather in about 10 minutes and change the world of automatic operation, logistics, economic activity, with SAR data. ～

Small SAR satellites (less than 100Kg, 1/100 of conventional low-cost satellites)

Small radar (SAR) satellite capable of Earth observation regardless of weather conditions for 24 hours. Compared to conventional SAR satellites, we are developing small SAR satellites with high resolution (1 m), lightweight, compact size, power saving, low cost superiority.

Largest antennas for small 100Kg satellites

A 3.6-meter-diameter, large-weight 15Kg, ultra-light-weight deployed parabolic antenna.Miniaturization is realized by using only the elastic deformation of the material without the movable part of the machine.



100Kg small SAR satellites
(The antenna used is the largest antenna for 100 kg small satellites developed in we)

Debris sensor

The world's first through-film microdebris sensor that can detect microscopic space debris in space.

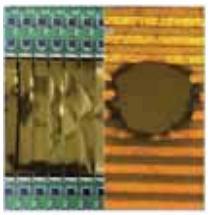
<Other Technologies>

・Non-pyrotechnic satellite separation mechanism: There are significant reductions in impact levels during separation of rockets and satellites, and benefits of reusability.

・Conductive tether: a device that uses an induced electromotive force to flow a current and raises or lowers its altitude by Lorentz force generated by interference between the current and the earth's magnetic field.

・Deployment sail for orbit departure: anti-debris equipment for small satellites. Reuse and reconditioning are possible because of the freedom of deployment and contraction.

QSAT-EOS
(small satellite)



Debris sensor

Management strategy / Vision

●Background

The QPS Research Institute is a company that develops world-leading small satellites and space equipment based on a wide range of experiences and innovative ideas from professors at Kyushu University and young technicians and industries. In the past, Kyushu University has been a representative institute for development of Micro-general-purpose Environmental Disaster Facilities for Chiba University, development of Debris Sensors, and the like, as well as comprehensive support for development in projects such as "Development of QSAT of EOS for Ultra-small general-purpose Artificial Satellite Used for Earth Observation, etc. In the first half of 2019, we plan to launch an innovative small SAR satellite in the world's first place.

●Future business deployment

In the future, we will build a SAR satellite system of 36 vehicles, build a world that can shoot almost anywhere in the world within about 10 minutes, and combine continuously obtained image data with AI (deep planning, machine learning) to contribute to the efficiency of infrastructure management, agricultural, marine and fishing, and disaster management. In addition, we will expand our network of Kyushu local companies to expand the satellite business in Kyushu to the world.

■Corporate profile

Address 〒810-0001
Tenjin Akai fusen Building 4F-B,
5-5-19 Tenjin, Chuo-ku, Fukuoka, Fukuoka
URL http://i-qps.net
TEL 092-751-3446

Number of employees : 10
Capital : 1billion 180million 500thousand yen
Year of foundation : 2005
Representative :
President and Representative director Shunsuke Onishi

■Outline of business

Research and development of satellites, satellite-equipped equipment, precision equipment, electronic equipment, and software, Design, manufacture, sales and technical consulting

ELM Inc.

Future plant factory realizing maximum efficiency with minimum space

EcoNursery ®

～Planned and efficient cultivation of baby leaves, sprouts, micro-herbs etc. in a 40 ft. container under complete pesticide-free conditions without being influenced by the weather ～

Own automatic transport system

It is possible to cultivate many crops efficiently by making it multi-stage even in a small space.Cultivation equivalent to Green house 15a in one container

Unitized in container

Budding racks, cultivation racks, artificial light sources, air conditioning equipment, irrigation and all required equipment are all unitized in one container.

Plant-tailored software management

· LED illumination pattern (red / blue irradiation intensity · irradiation time)
· LED irradiation distance · Environmental management (indoor temperature · humidity · carbon dioxide concentration)

LEDs are used as artificial light sources.

Efficient irradiation of required light (wavelength) enables short-term harvesting

<Other features>

By using the sowing machine, the operator just sowed the seeded sheet on the tray and the seeding is completed.
The planting of the seeds into the medium is speeded up. Moreover, harvesting machines can be used for smooth reaping.

Labor saving by automatic transportation

Growth promotion by LED light sources

Management strategy / Vision

●Background

Elm is a manufacturing company that strives to develop products on a day-to-day basis with the aim of spreading unwanted things around the world based on its slogan of "form of thinking" and "world."In particular, fully automatic optical disk repair equipment is used worldwide, not only in Japan. We are also supplying LED lighting and automatic satellite tracking equipment, which are highly color-rendering, by leveraging our technological capabilities. We are also working to develop new products with greater emphasis on agriculture.

●Future development of business

While food safety and traceability are attracting attention, by developing and operating "Eco-nursery" that cultivates baby leaf (vegetables) in a container and installs it next to a sales place together with containers, the ultimate " We aim for "direct production". In addition, we believe that we can develop this system which can provide fresh vegetables not only in the domestic but also in the Asia desert area where the natural environment is severely restricted and plant growth is limited, and also in extremely cold areas.

■Corporate profile

Address 〒897-1124
2398, Miyahara, Kaseda,
Minamisatsuma, Kagoshima
URL http://www.elm.co.jp
TEL 0993-53-6930
FAX 0993-53-7160

Number of employees : 48
Capital :
48million 750thousand yen
Year of foundation : 1980
Representative :
President Takakazu Miyahara

■Outline of business

Design for Contract Development of Electronic Equipment
Design and manufacture of labor-saving machines for industrial use

■Patents on the product

Optical disk repair system, LED light bulbs, solar-tracking power generation system, traceability system for meat factories (beef and pork), and automatic satellite tracking system

OK Planning Co., Ltd.

To preserve the benefits of consumers.

Optimal Weight Navigation Scale "Table Combi"

What is the optimum weight navigation scale “Table Combi?"

This machine aims to reduce the burden of work and minimize errors in weighing, and improve management efficiency, by automatically and quickly finding the optimum combination of measured objects when packing fruits, foods, and the like. Since it provides the same results whoever operates it, this desktop weighing machine enables standardized weighing and thus preserve the benefits of consumers.

Features of “Table Combi”

・Four operation buttons!Anyone can easily learn to operate it.
・Being light and compact , the machine is easy to be stored and can be operated anywhere.
・The machines are manufactured in-house! Therefore, they can cope with a variety of measured objects both in software and hardware.

Optimal Weight Navigation Balance
"Table Combination"

“Table Combi” available for renting for the first time in the industry

In order to reduce the burden of installing the weighing machine, we are the first in the industry to offer rental service so that it can be used only during the busy period. The renting system operates on rules like “the minimum rental period is one month," “no maintenance fee“, "possible to cancel when harvesting is drastically reduced due to natural disasters, etc.“ so that more people can use these weighing machines with ease.

Management strategy / Vision

●Birth of the machines triggered by feedback of on site peasants

Inspired by the feedback of on site peasants, the representative director with 20 year experience of weighing machine sales came up with the idea of developing “Table Combi“, the optimum weight navigation system.

As a venture company starting from scratch, we are able to improve our in-house manufactured weighing machines in accordance with the on-site voices.

This product received the Kumamoto Prefectural Industrial Award in 2017, the third year since it is put into market. We are steadily increasing its sales performance from Hokkaido to Okinawa and promoting it throughout Japan.

●Future business deployment

We aim to develop a total coordination business for agricultural harvesting and shipment.

To expand sales, we are developing new products, which target users who have not only packaging needs but also sorting needs.

We are also developing products for frequent users.

In the future, we will focus on sales to plant factories and JAs, and cooperation with automated packaging machine manufacturers.

■Corporate profile

Address 〒861-2202
2081-10,Tahara,Mashikimachi,
Kamimashiki-Gun, Kumamoto
URL http://www.tablecombi.com
Query TEL 096-388-7471 or
Website.

Number of employees : 4
Capital :
9million 900thousand yen
Year of foundation : 2014
Representative : President
Mitsuru Hatae

■Outline of business

Manufacture and sale of Table Combine
Construction of production plant facilities
Production and sale of IOT sensors

■Patents on the product

Number of patent applications: 10 cases
of design registration: 6 cases of
trademark registration

TANKA CO.,Ltd

TANKA
TANKA CO.、LTD.

System for preserving long-term freshness of safe, high-quality fruits and vegetables of natural origin

Tanka fresh.®

Absorb not only ethylene but also vegetable-generating gases in a short time

Application Features of Tanka fresh.®

This product is a freshness keeping agent only of completely new naturally derived ingredients that have never been before. "Tanka fresh.®" boasts security and safety. Bamboo charcoal + Japanese tea is the main ingredient and it is a safe and safe adsorbent. Tanka fresh. ® UV by titanium oxide and photo catalyst, which is a patent of Saga prefecture. Long-term freshness holding system that changes the world first and the world by these interactions. The issue of agriculture, forestry and fisheries "reduction of food loss rate" realized and UP of profit ratio can be expected.

Tankafresh.®
Gas adsorbent

Features of Technologies Supporting Long-Term Freshness Preservation System

The origins of TANKA... the devastation of mountain areas due to aging and depopulation. Especially in western Japan, it began with the idea that bamboo damage is common! I want to do something! These ideas got us start research. While we are conducting research, we had problem with the performance of bamboo charcoal. At this point, we met with the Ureshino Tea Experiment Station in Saga Prefecture and found out the fact that the ingredients of charcoal and tea gelled and integrated shows amazing adsorption capacity.

Tankafresh.®UV
The creation of the ultimate freshness maintenance system
Long-term freshness retainer

Comparison with other company's technology · Novelty

Compared to the cost of other companies, the company has achieved an economical efficiency and safety of up to one-sixty, and a high versatility that is unique to a compact size.

Management strategy / Vision

● Corporate Philosophy and Mission

We will strive to improve quality in all areas of our business, and contribute to society by earning customer satisfaction and employee satisfaction.
I would like to enjoy Japanese farmers by supplying delicious vegetables not only in Japan but also in other countries.
We will develop food safety and satisfaction through preserving freshness in the distribution of fruits and vegetables worldwide.

●Future development of business

We plan to accelerate collaboration with other companies to improve the efficiency of our freshness preservation system and develop innovative technologies.
In cooperation with agriculture-related ventures, the government will propose this proposal to customers, including outlet strategies, such as storage by maintaining long-term freshness after harvest and export by inexpensive shipping.
We hope that these products will be used by vegetable producers and handlers to adjust shipments through exports and long-term storage.

■Corporate profile

Address :〒840-0501
2655-3 Furuyu,Fuji-Chou,
Saga, Saga
URL http://tanka-eco.info/
TEL 0952-51-8811
FAX 0952-51-8811

Number of employees : 10
Capital :
9million 500thousand yen
Year of foundation : 2012
Representative :
President Yasuo Irie

■Outline of business

An innovative long-term freshness maintenance project in vegetables, fruits, and flowers in Japan and abroad using catechin extracted from bamboo charcoal produced from an abandoned bamboo grove in Saga Prefecture and unused Japanese tea extracted from No. 3 tea. This system uses a safe high-performance natural adsorbent and a photocatalyst using titanium oxide owned by Saga Prefecture.

■Patents on the product

Application No. 2015-537848 "freshness preservatives, their manufacturing methods, gas purification devices, and gas purification systems"

NANOX CO.,LTD.

Invisible world and future creation technologies
NANOX G/N series of ultrafine bubble generators

What is Ultrafine Bubble?

In recent years, Ultrafine Bubble, which has attracted attention from every industrial association, has been widely studied for its functional application.

In recent years, we also conduct effect verification for agriculture (hydroponic/soil cultivation and growth promotion) and industrial washing, although we are mainly engaged in the aquatic industry, such as freshness maintenance and land-based aquaculture.

Ramond Nano Mixer
Ramond Stirrer

High-density ultrafine bubble generator

Our static fluid mixers have evolved for about 20 years ago, and the bubble generation and processing capabilities have increased by 5 to 10 times compared to our conventional products.

- ●Ultra-dense ultrafine bubble generator for research institutions
- ●Large and small equipment for fishing and agricultural use

Various models are available depending on the application fields and scales.

NANOX G-type
NXG1.5-3.7

NANOX-N types
NXN-50A-150

Application Achievements

Retention of fish freshness: Fishing Association, Fish Market, Aquatic Processing Laboratory, Aquatic Retailers
Land-based aquafarm (e.g., Fukukuka abalone farm)
Hydroponics plants, open field and house cultivators

Management strategy / Vision

●Background

Nanox is a company that is detached from the business division of Fukuka Water Industry and is rooted in water industry.
For about 50 years we have been holding the belief "to reduce loss due to fish freshness deterioration,".
The aim of this patent technology is to be used as a solution to problems that water industry and agricultural industry have been faced with for many years.
This technology will change the future, including revolution of fresh fish distribution and promotion of aquaculture and agricultural growth.

●Future business deployment

Currently, we are working mainly for water and agricultural industries, but we also conduct effect verification in other fields such as washing and sterilization. We are expecting to collaborate with specialized companies to conduct effect verification and introduction system development, and to develop patents and know-how licensing businesses for each field.
Since we have established a distributor system, we are recruiting companies who want to register distributors in various fields at any time.

■Corporate profile

Address 〒803-0801
94-22, Nishiminatomachi,
Kokurakita-ku, Kitakyushu, Fukuoka
URL http://www.nano-x.co.jp
Query TEL:093-562-0787 or
Website

Number of employees : 5
Capital : 75 million yen
Year of foundation : 2008
Representative :
President Kenichi Mogami

■Outline of business

Manufacture and sale of static fluid mixing equipment and ultrafine bubble generating equipment

■Patents on the product

U.S. Pat. Nos. 6,126,728 and 6,176,881
In addition, registration of many patents and trademarks

Universally Electric Works Co., Ltd.

Helping to make profitable agriculture by production cost reduction system.

Labor-saving system for agriculture-Inverter Temperature Automatic Control Panel

Development and production of automatic control panels for agriculture

1. New next-generation agriculture is spreading.
2. By using the inverter control panel to combat heat stroke in cattle, we are able to reduce costs.

This product is designed and manufactured by Universal Denko based on the opinions of local customers.

For cattle barns
Inverter automatic control panel

Inverter automatic control panel

Features of Technologies Supporting Products and Services

Focusing on technical aspects
The inverter control panel for barns measures not only temperature but also humidity, and automatically controls the air volume using the discomfort index.

Inverter external setter
With a touch panel
Can be set easily

Novelty compared with technologies of other companies

Distinct from the conventional manual switching control pane, automatic temperature control and automatic control based on temperature-humidity discomfort index becomes possible.
It is an excellent way to reduce heat stroke in cattle while at the same time saving energy. Automatic control panels of humidity sensors, wind direction velocity, and solar radiation are also available.
Please let us know your request. We are ready to offer suggestions.

Management strategy / Vision

●Background

We are engaged in automatic control panels and electrical work for agriculture and energy, and we provide proposals for energy-saving measures.

Proposals are made in accordance with customers' requests and our experiences, know-how, and technologies.
We propose devices that please our customers. In addition, after-sales services are conducted based on the motto of speedy, reliable, and thorough services. If you have any requests, please feel free to telephone 096-322-5135 to reach the customer support center.

●Future development of business

We would like to cooperate with construction companies involved in agriculture nationwide.

We intend to work in cooperation with electric power construction companies related to agriculture to help domestic producers.
Automatic control panels can also be developed and manufactured.
We are working to reduce costs by proposing energy-saving and CO2-saving devices.
House Electricity Watching Team is spreading throughout the country and working to help domestic producers and.

■Corporate profile

Address 〒860-0073
1-19-10,Shimazaki,Chuouku,
Kumamoto, Kumamoto
URL http://universally.co.jp
Query TEL 096-322-0303
Facebook or Website.

Number of employees : 15
Capital : 15 million yen
Year of foundation : 1986
Representative :
President and
Representative director
Hirofumi Nakagawa

■Outline of business

Electrical work specializing in agriculture
Development, manufacture and sale of environmental control devices for barns
Manufacturing and sales of automatic opening and closing equipment for vinyl houses

Other(Products / Services)

KITHIT Co.,Ltd

High-end audio for super-sonar HIT-ST series
Woodboard speaker "HIT-FP1"

Features of the HIT-ST series

(1) Realization of omnidirectional reproduction of high directivity

(2) Realizing the quick start of sound

(3) realization of reproduction by a plane wave with little attenuation

The HIT-ST series is able to realize the world's unprecedented speed of sound generation by constructing a synthetic polymer material film in a circular cylinder shape in a sound body, and it is possible to generate a plane wave with less attenuation in all directions For this reason, it faithfully reproduces the melody and strength in the natural sounds of one instrument.

Supertweeter HIT-ST1

Features of the "HIT-FP1" woodboard speaker

(1) Using a wood plate as a sound generator, realizing the omnidirectional reproduction of sound from the ultra-low region from 10 Hz

(2) Realizing a tired, soft sound that is audible, and faithfully reproducing the sound of a string instrument in particular

(3) Unable to see a conventional speaker unit

(4) Collaboration with Okawa furniture with high woodworking technology

We use "wood" as a material, and the warmth of nature unique to wood, the sound that does not fatigue our ears even if we listen for a long time, spreads throughout the space, and it gives us a sense of realistic and realistic feeling. Because the wood is vibrating, the string instrument can faithfully reproduce the sound, and it has also gained a favorable reputation for the craftsmen and space designers who produce string instruments.

Woodboard speaker "HIT-FP1"

Management strategy / Vision

●Background

Kyushu Institute of Technology.
We discovered that biological sensors developed by utilizing the community creation business (Ministry of Economy, Trade and Industry) can be used as pronunciators, and developed a high-end audio super-tweeter "HIT-ST1". The new pronunciation was highly evaluated and received an audio brand award (held by the publisher of the sound source). The wood board speaker 「HT-FP1」 won the Fukuoka Design Award from the high design nature.

●Future business development

HIT-ST series

We have established a network of audio specialists in Japan, and are preparing for overseas advancements in the future. We are selecting exporters with overseas sales routes.

Woodboard speaker "HIT-FP1"

Hotel lobby, restaurants, offices, sales activities while trying to introduce into places where people gather. In addition, we are studying the approach to an interior industry, new business.

■Corporate profile

Address 〒808-0135
1-8 Hibikino, Wakamatsu-ku,
KitaKyushu, Fukuoka
URL http://www.kithit.com
Query TEL093-695-3472 or
Website.

Number of employees : 3
Capital : 20 million yen
Year of foundation : 2005
Representative :
Representative Director
Masamichi Ishihara

■Outline of business

・Development, manufacture, and sale of sound-related equipment
・Voice recording and editing

Kumamoto DMC Ltd.

Kumamoto DMC aims to become a "platform" in tourism that connects regions with the nation and the world.

Japan inbound land operator to actively improve the system for tourist reception

What is DMC?

DMC, an abbreviation of Destination Management Company is a regional tourism promotion organization supported by the national government (Japan Tourism Agency).

Characteristics of Land Operations

1. The increase of individual foreign tourists and changes in travel needs (precondition) .
2. Aiming to create repeat business, we provide tourists with excitement through experiential programs and interactions with local residents.

This work is aimed primarily at attracting inbound visitors to Kumamoto and provides tour programs that meet the needs of visitors from short-term to long-term stays. It also coordinates a wide range of stay programs, from sports tourism, such as interaction with professional golf and soccer teams, to gourmet tourism and green tourism.

Characteristics of the system for tourist reception

We aim to create an environment that facilitates inbound travelling.

Specifically, we provide multilingual call center services, consumption tax exemption services, electronic money settlement services, and cross-border EC services.

Upper) Development of New Tourism Resources (Night Hot Strecking)
Below: Awareness-raising Seminar for Tourism Area Residents

Management strategy / Vision

●Background

・The Kumamoto Earthquake led to the establishment of the DMC by Kumamoto Prefecture and Higo Bank. Our mission is to revitalize Kumamoto Prefecture as a whole through food and tourism.
What is important is to create products from a market-in perspective, i.e., "create products that sell" rather than a product-out style i.e., "sell what you want to sell". To this end, we base our actions on big data and various survey data.

●Outlook

Our service is available not only in Kumamoto Prefecture but also in Kyushu Prefecture. In particular, we would like you to make use of the system for tourist reception.
In addition, we provide support for the formation of DMO (Organazation) and DMC in areas where there is a need.
We are developing a wide range of businesses related to food and tourism, so please feel free to consult us. We welcome local governments and companies that can establish cooperation with us.

■Corporate profile

Address 〒860-0845
3-31,Kamitooricho,cyuoku,
Kumamoto,Kumamoto
URL https://k-dmc.co.jp/
Query TEL096-276-6655 or Website.

Number of employees : 15
Capital : 50 million yen
Year of foundation : 2016
Representative :
CEO Shinichi Murata

■Outline of business

・Land operator service
・Business of a local trading company
・Consulting service
・Information transmission services

SHIKUMI DESIGN Inc.

Designing systems to make everyone smile

Designing and producing hands-on intellectual entertainment contents

We are good at creating new experiences.

Science Museum Fukuoka City

We set up regular exhibitions, in which we think while moving our bodies and experience things through simulation, to deepen our understanding of science and technology that supports our daily lives.

ARC (AR+Radiocon)

ARC is a new generation radio control that uses AR (augmented reality). You can operate the car while watching the real-time video from the camera embedded in the radio control. ARC can also be used to introduce offices.

Let your creativity fly

If you swipe your tablet toward the large screen, the sounds and the pictures you have written on the tablet will vividly appear on the screen. This content is well received by a wide range of generations.

Programming education

We can nurture the creativity and logical thinking required for programming through workshops using our iOS application “Springin'”and "paintone”.

Adding your creativity to our technology, space, and events, let us create new values together!

■Corporate profile

Address 〒812-0011
Hakatahojo Building #401
Hakataekimae,Hakata,
Fukuoka
URL https://www.shikumi.co.jp/
Query Website

Number of employees : 11
Capital : 10 million yen
Year of foundation : 2005
Representative :
CEO Shunsuke Nakamura

■Outline of business

We provide one-stop services covering everything from planning to design and production of participatory content such as digital signage, real-time live presentation, and educational content. The software has been highly praised both in Japan and abroad for its awards from Intel and Microsoft.

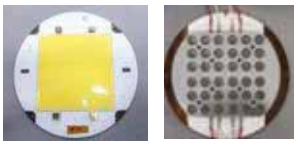
STEQ Co.,Ltd.

・Manufacture and sale of high-output, high-luminance LEDs (white, blue-green, UV-C, UV-A)
・Sales of applied products (fish collection lights, water treatment equipment, biomass power generation equipment)

Unique 600 W to 1100 W High Brightness Module

Features of High Power and High Brightness LED Modules

1. Patented 600 W to 1100 W high-intensity modules
2. Highly reliable inorganic materials with high heat dissipation and high thermal conductivity (corresponding to deep ultraviolet rays)
3. Since substrate production is only printing, it can respond quickly to various needs.
These products are developed based on NEDO subsidies based on our own patents. Production is entrusted to Shikoku Metrology Industry. As a single-module high-output product, it boasts unrivaled performance



600 W white module and UV-C module

Features of High Brightness LED on-board Light

1. 600 W water-cooled fish collectors have 5-6 kW capacity for Metahala Lamps
2. 300 W Air-Cooled Fish Collection, etc., also have a capacity equivalent to 3 kW.
These light sources are blue-green and have a wavelength suitable for fish, and in the fisherman experiment of the Pyushima Island.We have obtained good results.

Features of biomass power generation and water treatment equipment

1. High-power UV-C LED modules are used for water treatment
2. The water treatment equipment is used in high-performance biomass gas power plants.
We have developed UV - C high power LED module for the first time in the industry, and it is adopted as water treatment equipment. We also support the sale of biomass power generation equipment equipped with this water treatment equipment.

600 W water-cooled LED fish collection lamp

Management strategy / Vision

●Background
It is a venture company from Kyushu Institute of Technology founded in 2011.
In 2013 NEDO's large subsidy with Shikoku Metrology Industry It is a thing that we got together and promoted development.
The basic patent was acquired by the Company, and the current situation is jointly owned by Shikoku Metrology Industry.
Since our company is a venture company, we are leaving all LED module manufacturing to Shikoku Metrology Industry.
Although it is a venture from Kyushu Institute of Technology, representatives and key officers are composed of Hitachi's OB, and Hitachi's experience in semiconductor development has also been utilized.

●Future business deployment
High-output, high-brightness LED module
With further development of high-power modules to meet the needs. White and deep ultraviolet rays (UV-C) can also be used.
Development of applied products
The mercury regulations are expected to affect the onboard lights, and the LED onboard lights will be expanded in sales.
Since mercury regulations affect water treatment equipment, we want to actively sell UV-C modules.

■Corporate profile

Address 〒808-0135
1-8 Hibikino, Wakamatsu,
KitaKyushu, Fukuoka
URL http://www.STEQ.com
Query TEL093-695-3491

Number of employees : 4
Capital :
40million 880thousand yen
Year of foundation : 2011
Representative :
Representative Director
Masamichi Ishihara

■Outline of business

・Manufacturing and marketing of LED modules beyond 1000 W
・Development of high-power UV-C LED modules
・Expanding sales of LED onboard lights
・For water treatment equipment using UV-C LED Sale
・Support for sales of biomass power generation systems

List of major venture support organizations in Kyushu

Organization name	Address	TEL/HP
Organization for Small & Medium Enterprises and Regional Innovation, JAPAN Kyushu Headquarters	4-2 SamuteihakatagionBLDG, Giommachi, Hakata-ku Fukuoka, Fukuoka, 812-0038	092-263-1500 http://www.smrj.go.jp/kyushu/
Kyushu NBC	5F, Ibbfukuoka, 2-3-36, Tenjin, Chuo-ku Fukuoka, Fukuoka, 810-0001	092-771-3097 http://qshu-nbc.or.jp/
National Institute of Advanced Industrial Science and Technology Kyushu (Industry-academia-government exchange study group「ITSUKINKAI」	807-1, Shukumachi, Tosu, Saga, 841-0052	0942-81-3600 http://www.aist.go.jp/kyushu/
Fukuoka Venture Business Support Association	4F FukuokaBLDG, 1-11-17, Tenjin, Chuo-ku Fukuoka, Fukuoka, 810-0001	092-643-3449 http://f-vbs.org/
Fukuoka Growth Next	2-6-11, Daimyo, Chuo-ku Fukuoka, Fukuoka, 810-0041	092-741-2888 https://growth-next.com/
Startup Cafe Fukuoka	Fukuoka Growth Next 1F,2-6-11 Daimyo Chuo-ku Fukuoka, Fukuoka, 810-0041	080-3940-9455 http://startupcafe.jp/
Kitakyushu Foundation for the Advancement of Industry Science and Technology（SME support center）	Kitakyuusyuutekunosenta- Bld.1F, 2-1 , Nakabarushimmachi, Tobata-ku Kitakyushu, Fukuoka, 804-0003	093-873-1430 https://www.ksrp.or.jp/fais/
Saga prefectural regional industry support center （Venture Enterprise Network of SAGA Prefecture）	114, Nabeshimamachi Yaemizo, Saga, Saga, 849-0932	0952-34-4422 http://www.infosaga.or.jp/
Nagasaki Industrial promotion organization	Dezimakouryuukaikan, 2-11, Dejimamachi, Nagasaki, Nagasaki, 850-0862	095-820-3838 https://www.joho-nagasaki.or.jp/
Nagasaki Prefesture Business Promotion Plaza	8F,Dezimakouryuukaikan, 2-11, Dejimamachi, Nagasaki, Nagasaki, 850-0862	095-828-1616 http://nagasaki-bpp.jp/
General Foundation Kumamoto Prefecture Entrepreneurial Support Center	2081-10 Kumamototekunoporisusenta-uchi, Tabaru, Mashiki-machi Kamimashiki, Kumamoto, 861-2202	096-287-4465 http://www.kmj-backup.or.jp/
Oita Industrial promotion organization （OitaStartupCenter, Inc.）	Ooitadai2sofuiapuraza Bld.5F, 17-20 , Higashikasugamachi, Oita, Oita, 870-0037	097-534-2755 https://startup.oita.jp/
Miyazaki Industrial promotion organization	16500-2, Sadowaracho Higashikaminaka, Miyazaki, Miyazaki, 880-0303	0985-74-3850 http://www.i-port.or.jp/
Kagoshima Industry Support Center	Kagosimakensangyoukaikan2F, 9-1, Meizancho, Kagoshima, Kagoshima, 892-0821	099-219-1272 http://www.kric.or.jp/
Kagoshima kogyo industrial club	Middle Floor,Kagosimakensangyoukaikan, 9-1, Meizancho, Kagoshima, Kagoshima, 892-0821	099-225-8012 http://www.ikic.or.jp/

＊The above is a summary of the Kyushu Semiconductor and Electronics Innovation Council after collecting information independently by HP etc. It does not cover the institution that supports venture in the Kyushu region.

[Contacts]

Kyushu Semiconductor Industries & Electronics Technology Innovation Association

#302 KS-T Bldg, 2-15-19 Hakataeki Higashi, Hakata-ku, Fukuoka, 812-0013, JAPAN

Phone: +81-92-473-6649

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