

MOBIO Osaka Pavilion Exhibition:No/BORdER

-A Technology Exhibition that Transcends Borders, Barriers, Times, and Limits-

Reborn Challenge
Implementation Body

Osaka Business
Development Agency

Monodzukuri Business
Information-center:MOBIO

"REBORN / do ▶ No / BORdER: Go beyond borders by being REBORN!" will feature products and technologies from small and medium-sized manufacturing companies in Osaka Prefecture that transcend borders, barriers, times, and limits. This exhibition aims to enhance the technological capabilities of Osaka's small and medium-sized enterprises, stimulate the creation of new products, and serve as a bridge between the past and future, driving technological development forward.

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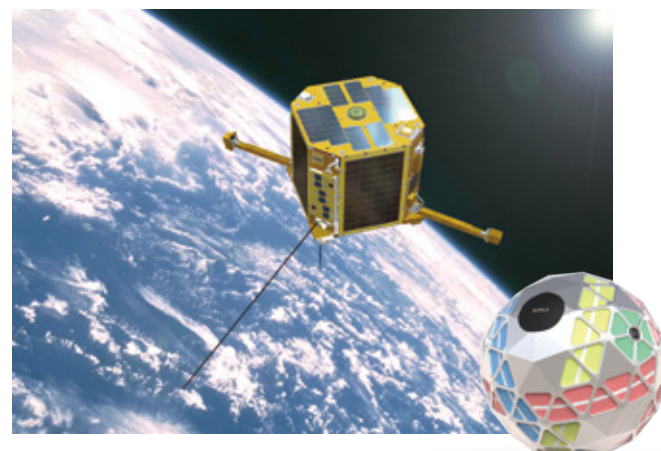
Special Website



An innovative coating that produces a sustainable future

TAKENAKA SEISAKUSHO CO., LTD.

Our special anti-rust coating technology protects metal surfaces with a thin and highly adhesive special coating. This coating improves the durability of metal material by preventing deterioration due to oxidation or corrosion. In the exhibition, we will introduce our coating technologies that help to extend the life of structures and to reduce environmental impact.



The dream is to go back to space!
Lunar jumping robot "MAIDO-2"

ASTRO TECHNOLOGY SOHLA

We will give an easy-to-understand explanation of technology to make robots leap by expanding and contracting springs with the resultant force of SMA (shape memory alloy) coils and a toggle mechanism. The explanation will answer the questions, "What kind of technology can we use to make robots operate and leap in the harsh environment on the moon?" and "What kind of specifications are necessary to make actions on the Earth also operate on the moon?"

Changing the future with
"deformed wire"!
Contributing to manufacturing
for CO₂ reduction

Namitei Co.,Ltd.

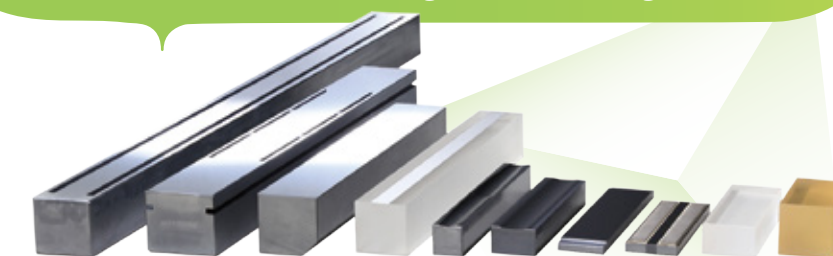
"Deformed wires" are wires produced with cross sections of various shapes. They are materials that offer a high degree of design freedom, improve yields, and are environmentally friendly because they reduce scrap. In the exhibition, we will introduce "ultra-deformed wires". These contribute to the development of higher outputs and smaller sizes on the motors used for electrification (such as on electric cars and drones).

Solving social issues with safe,
powerful magnetism

SIMOTEC CO., LTD.

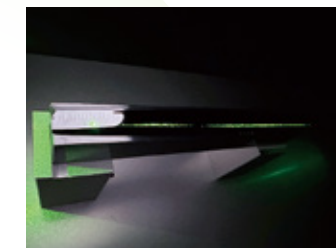
The "Switching Magholder" (SMH) is a magnetic attachment device where once the device is adsorbed, it continues to keep adsorbing without energizing. It contributes to the solution of social issues such as labor shortages and the reduction of CO₂ emissions in various industries including logistics and transportation. In the exhibition, we will introduce how the SMH contributes to the efforts of companies toward the SDGs. We are also planning demonstrations such as a robot that uses magnetic adsorption force to walk on a wall.

Bright and Powerful X-ray Mirrors Contribute to
Scientific and Technological Challenges



JTEC CORPORATION

We are exhibiting the next-generation two-dimensional focusing X-ray mirror with an "ideal shape" and "the world's highest level of smoothness." This mirror generates the brightest and strongest focused X-rays ever on Earth, enabling detailed scans of objects' deep internal structures that were previously impossible to observe. This technology will enable the creation of technologies and products that contribute to solving future social challenges such as drug discovery and environmental issues.



Contributing to the development of
medicine and engineering with
technology to make a wide variety
of items "thin"

Tajiri Thin Section Laboratory

A "thin section" is a specimen prepared for microscopic observation. They were originally developed in geology, where they were made by grinding rocks into thin pieces. In addition to rocks, our company also has original technology to simultaneously cut areas of differing hardness or moisture content to produce thin sections, and we have a track record of creating thin sections of various materials. At the venue, we will exhibit a wide range of thin sections including rocks, bones, teeth, insects, and industrial products.



Experience the Future of
Healthcare: See, Feel,
and Connect with Life

Nalux Co., Ltd.

Step into the future of healthcare innovation at our exhibition. Observe the process of our cutting-edge healthcare exercise device in action as it works to improve blood vessel flexibility and spread its healthy effects throughout the body. Furthermore, visitors can enjoy the fascinating effects of ever-changing color floral works by our visibility optimization illumination technology, which is developed for medical professionals and to improve the clinical environment. Don't miss this unique opportunity to experience next-generation innovations that are shaping the future of life and health.

Nonwoven fabric spacers used
in radiation therapy for cancer
protect healthy organs!

Kanai Juyo Kogyo Co.,Ltd

Nonwoven fabric spacers are a product that protect healthy organs from the radiation used in cancer treatment, which expands the possibility of a definitive surgery.

Furthermore, these products have been designed to fit closely with the needs of the patients as they are degraded and absorbed in the body after the treatment, eliminating the need for surgery to remove them. In the exhibit, we will introduce these future spacers that are expected to improve quality of life (QOL) after treatment.

Daiichi Seikosha CO.,Ltd

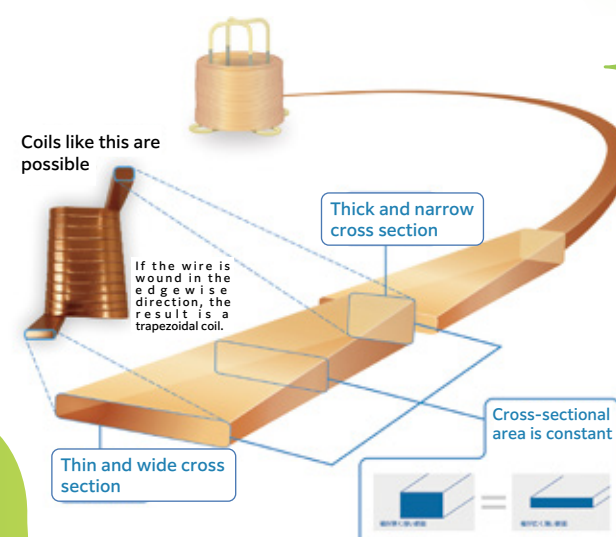
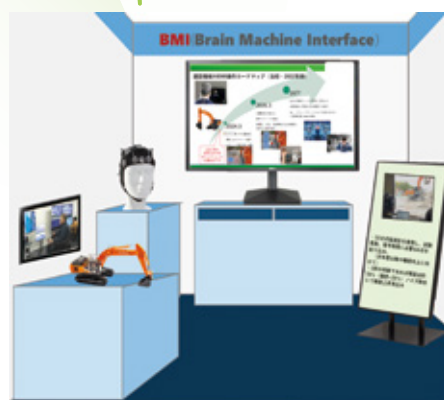
The "free blend method" pulverizes eggshells, paper scraps, and other waste materials and uses them as the main raw material. Plastic materials are used as a binding material, but are only about 20% of the material. This is a unique, environmentally friendly technology where the rate of waste material use is raised to a maximum of 80%. At the venue, we will exhibit a series of products created from local waste materials from around the country.



Heavy construction machinery moves just by "Thinking"
in Your Head! Remote control
system using brain waves

C&M L.L.C.

Brain-Machine Interface (BMI) technology is technology that uses electrodes placed in contact with the human scalp to detect weak brain waves and then send drive instruction signals to machinery (which in this exhibit is heavy construction machinery). In this exhibition, we will demonstrate the conversion of brain waves into driving signals for the operation of miniature (1/14 scale) heavy machinery in the venue and have the visitors experience a feeling that they are there.



Realizing unmanned work at
heights with master and slave
drones that adhere to walls!

Hishida R&D Co., Ltd.

These are drones that operate in a set of a master unit and a slave unit. Vacuum pumps and suction cups mean that the drone body can be fixed to a wall. This attachment makes it possible to perform inspections and tasks that are difficult while flying, such as drilling a hole. We aim to improve the safety and efficiency of work in high places that are difficult to reach. We will exhibit a master unit with a diameter of 2 m and a slave unit equipped with a drill, and visitors will be able to experience the suction power of the suction cups.

