

February 4th, 2025

Space BD Inc.

Space BD Ramen ingredients, commercial product materials and logo plates return to earth after a ten-month space journey

The third “Space Delivery Project: Return to Earth” completes its mission

Space BD Inc., a space business operator that provides various services including satellite launches and microgravity research on the ISS, carried out its third space utilization project “Space Delivery Project: Return to Earth”. Items launched into space on November 10, 2023, toward the International Space Station (ISS) completed an approximately ten-month journey in space and returned to earth on December 18, 2024, after which an inspection by NASA, JAXA, and other relevant agencies were concluded.



Materials and plates that returned to earth after a journey in space (After)

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Materials and plates before being launched into space (Before)

Objects return to earth after travelling through space for approximately ten months – the longest space journey of the project

Japan's first space utilization project involving the commercial use of ISS extravehicular equipment took place in 2022 with Space BD's initial launch of the "Space Delivery Project: Return to Earth". Now, Space BD launched its third mission of the project which transported and exposed to space such objects as research and development materials, materials used to make commercial products (aluminum, copper plate, Ecocar interior wall tiles, exterior wall tiles, sanitaryware items), logo plates, and ramen ingredients (noodles, soup, leek, seasoned bamboo shoots, char siu pork, and material used to make ramen bowls) from Osaka's "Jinrui Mina Menrui", known as the ramen shop with the longest queue.

These objects were launched into space at 10:28 a.m. (Japan time) on November 10, 2023, from the Kennedy Space Center in Florida, USA. On November 24 the objects were then attached to a port outside of the ISS spacecraft and exposed to outer space.

The objects were exposed to cosmic rays and ultraviolet rays as they flew about 400 kilometers above earth at approximately 7.9 kilometers per second (about 28,000 kilometers per hour), which is equivalent to orbiting the earth once every 90 minutes or so, or roughly 16 times in one day. After approximately ten months of space exposure at the ISS, they were removed from the port and placed in an airlock on September 5, 2024, and returned to earth and landed on water on December 18, 2024. The inspection of the items by JAXA and NASA were completed in January 2025.



The objects were retrieved from space and placed inside the ISS spacecraft (Provided by JAXA/NASA)

The product materials and logo plates showed signs of discoloration due to exposure to cosmic and ultraviolet rays. During the course of the project, logo plates and research and development materials were exposed to outer space from February 2022 for about 9 months during the first mission and from March 2023 for about 3 months during the second mission. The ten month-long period for the third mission marks the longest exposure of the project.

Objects launched into space for the third mission:

■Oita Prefecture

<microcosmos> “The desirable state of space and earth in the years to come”

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■Kyushu Institute of Technology, School of Engineering, Department of Space Systems Engineering
<Promotion> Aluminum plate imprinted with the university logo and students' comments

■“Jinrui Mina Menrui” goes to space!!! (Contract partner: MSD)
<Food, Promotion> “Jinrui Mina Menrui” ramen shop’s logo plate and ramen ingredients (noodles, soup, leek, seasoned bamboo shoots, char siu pork, and material used to make ramen bowls)

■Thermo Fisher Scientific Japan Group
<Promotion> Aluminum plate imprinted with Thermo Fisher company logo

■EXPLOR Biologics Pty Ltd
<Promotion> Aluminum plate imprinted with EXPLOR Biologics company logo

■Seiren Co., Ltd., R&D Center, Artificial Satellite Group
<R&D, Promotion> Experiment comparing new and conventional carbon fiber composite materials with laser-printed name of product

■Tampopo 6 Team (Representative Entity: Tokyo University of Pharmacy and Life Sciences. Partner Entity: Fukuoka Institute of Technology)
<Application in research> Verification of bio-organic synthesis and microbial survivability in outer space for the purpose of unraveling ‘the origin, migration, and survival of life in space’.

■HelioX Cosmos Co., Ltd.
<Promotion> Aluminum plate imprinted with HelioX Cosmos company logo

■LIXIL Corporation, D&I Promotion Project
<Promotion of D&I> Material for company products: aluminum alloy, copper plate, ceramic sanitaryware, Ecocarat (porous ceramic tiles), exterior wall tiles (porcelain tiles)

Click here for more details about the objects launched ▶<https://space-bd.com/release/2054/>

About the “Space Delivery Project: Return to Earth”

A project that utilizes the exposed experiment bracket (ExBAS) attached to the ISS “Kibo” IVA-replaceable small exposed experiment platform (i-SEEP). Space BD widely recruits participants who provide objects that are selected for launch into space, and supports the entire process up until the recovery of the items after they return to earth. Space BD is currently recruiting participants for the fourth round of the project.

<https://youtu.be/27rcjyaP7MY>

Space BD is selected and approved by JAXA to execute projects that contribute to the commercial use of space by various businesses and institutions utilizing the ISS, a government-run facility that conducts demonstration experiments in space. There are already a number of successful cases associated with entertainment (launch of a plate inscribed with the logo of J01, a global boys group) and art (traditional craft designed and produced by Kengo Kuma and others using material returned from space). The recent mission included ‘food’, giving us insight into a new possibility for space utilization. Space BD will continue to promote a wide range of collaborative projects to help develop space into a major and vital industry.

■Comment from Yoichi Imai, Engineer, Space BD



I am very pleased to report that the items delivered to space for the third mission of the “Space Delivery Project: Return to Earth” have returned safely after being exposed to space at the ISS for approximately ten months. I wish to take this opportunity to thank JAXA, NASA, and all those who extended their cooperation and efforts to this project.

The samples that journeyed through space will be returned to their owners and will no doubt be put to good use.

We hope to continue spreading the thrill and excitement of space to everyone, so please look out for our next endeavor.

■About Space BD

Space BD is a one-stop service provider of various solutions to foster commercial utilization of space. Ranging from launch of small satellites with commercial launchers as well as via the International Space Station, to supporting pharmaceutical research with protein crystallization in microgravity, Space BD can support everything from business plan formulation and market research to hands-on technical operations. As of Jan 2025, Space BD has supported over 90 satellite projects and over 500 related missions.

U R L : <https://space-bd.com/en/>