

niponica

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Discovering  
Japan

no. 38



• Special Feature •

# The Japanese People and Space





• Special Feature •

# The Japanese People and Space

Since ancient times, the Japanese people have contemplated the unfolding of the heavens. Discover Japan's culture of fascination with space—from stories, to art and entertainment, to space exploration itself.

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Top: H3 rocket test vehicle No. 2 launched in 2024 (©JAXA)  
 Cover: The lone cherry tree in Nohira stands under the starry night sky in Hakubamura, Nagano Prefecture. (Photo: Aflo)

*niponica* is published in Japanese and seven other languages (Arabic, Chinese, English, French, Portuguese, Russian and Spanish) to introduce to the world the people and culture of Japan today. The title *niponica* is derived from "Nippon," the Japanese word for Japan.

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# Experiencing the Universe in Japan

The Japanese have long revered the light emanating from the sun, moon, and stars, reflecting their glowing beauty in both their physical landscapes and their visual art. For the Japanese, the magnificence of the cosmos always evokes the harmonious relationship between nature and humankind.

Meteor shower in full display over Mt. Fuji  
(Photo: PIXTA)





Opposite page, top: Starry sky above Konpira Shrine in Shosanbetsu Village in Hokkaido (Photo: PIXTA)

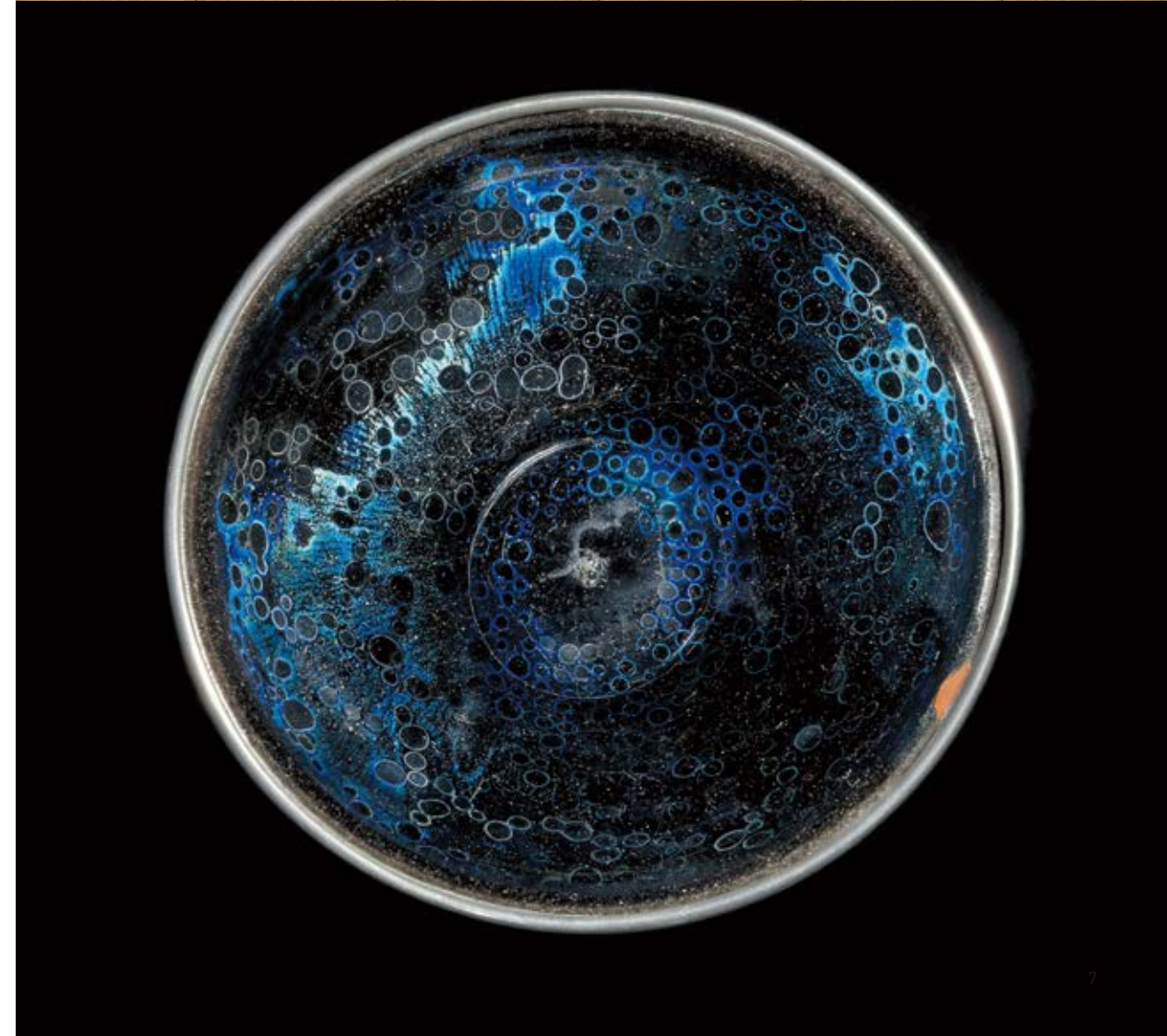
Top: Folding screen depicting the moon and sun with autumnal grasses. Artwork portraying this motif, a favorite subject of Japanese paintings since ancient times, represents the Musashino plain in western Edo (present-day Tokyo).

*Jitsugeitsu Akikusazu Byobu* (Screens depicting sun, moon, and autumnal grasses) (Collection of Fujita Museum)



Opposite page, bottom: The rising sun between the Meoto Iwa ("Wedded Rocks") at Futamigaura in Ise City, Mie Prefecture (Photo: Adobe Stock)

Bottom: This Yohen Tenmoku tea bowl, a National Treasure believed to have been produced in the 12–13th century, is one of just three that are known to still exist. Mutations in the black bowl's glaze create star-like flecks that bring to mind the cosmos. The nobility in early Japan were eager to own one of these very special tea bowls. (Collection of Fujita Museum)







Left: A scene in *Taketori Monogatari Emaki* ("The Tale of the Bamboo Cutter Illustrated Scroll") depicts Princess Kaguya (upper right) departing Earth to return to the moon with her entourage. (Collection of National Diet Library)

Below: An astronomical chart in the Kitora Tomb includes over 350 stars, as well as circles corresponding to the celestial equator and the ecliptic (the apparent path of the Sun). (Five mural paintings of Kitora Tomb, Jurisdiction of the Ministry of Education, Culture, Sports, Science and Technology of Japan)

# Japanese Views of Outer Space

Since ancient times, outer space has been seen as an extension of nature in Japan, familiar through poems, songs, and tales. Japan's approach to space development reflects this unique cosmological view, as well.

## The moon, ever close

*Taketori Monogatari* ("The Tale of the Bamboo Cutter"), the oldest example of Japanese *monogatari* (fictional prose narrative) literature, written around the 9th century, features a moon-related setting. In it, Princess Kaguya from the moon grows into an adult on Earth before eventually making her return, escaping a marriage proposal from the Emperor, who has fallen in love with her, charmed by her beauty. The tale depicts the impermanent nature of life on Earth and the immortality associated with the world of the moon. Also, the 11th-century *Sagoromo Monogatari* ("The Tale of Sagoromo"), includes a scene in which protagonist Sagoromo, a mid-ranking captain, is visited by a deity who descends from the moon as he plays his flute in front of the Emperor. These two tales, both depicting visitors from the moon, suggest that the people of Japan viewed celestial bodies not as distant and completely cut off from the Earth, but associated with a considerable degree of closeness.

## Outer space as an extension of nature

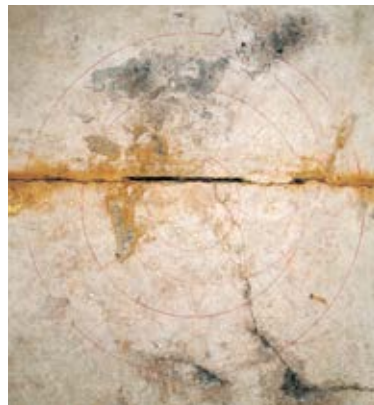
The Shinto religion, practiced in Japan since ancient times, is based on a belief that all things are imbued with *kami* spirits — *yao-yorozu no kami*, "myriads of deities"—including mountains, seas, rivers, and trees. Since the Japanese people have primarily supported their lives with agriculture, the natural world, which they associated with blessings as well as threats, was not only

an object of awe and fear, but of reverence. Consequently, celestial bodies were counted among the "myriads of deities," with the sun deified as Amaterasu Omikami and the moon as Tsukuyomi no Mikoto. While this made them exceptional among the *kami* deities, they were depicted as having great influence on people's lives. With the celestial *kami* viewed as essentially the same as those on Earth, outer space, then, was thought of as an extension of nature.

This Japanese cosmological view has been expressed in poetry and songs as well. The *Manyoshu* ("Collection of Ten Thousand Leaves"), the oldest Japanese poetry collection, compiled around the 7th to 8th centuries, contains over 100 poems featuring the moon. In the same way as the mountains, rivers, flora, and other natural phenomena the poets took as objects of their emotion, the moon was featured in their work as well. Poet of the Edo period (1603–1868) Matsuo Basho composed the following *haiku*:

*Araumi ya / Sado ni yokotau / Amanogawa*  
The stormy sea / stretching out toward Sado / the Milky Way

His poem, inspired by natural beauty, places the imagery of the island of Sado floating in the rough waters of the Sea of Japan alongside the Milky Way — *Amanogawa*, "the Celestial River"—stretching through the skies above. It certainly feels imbued with Japanese sensitivities that view the celestial bodies and nature as an integral whole.

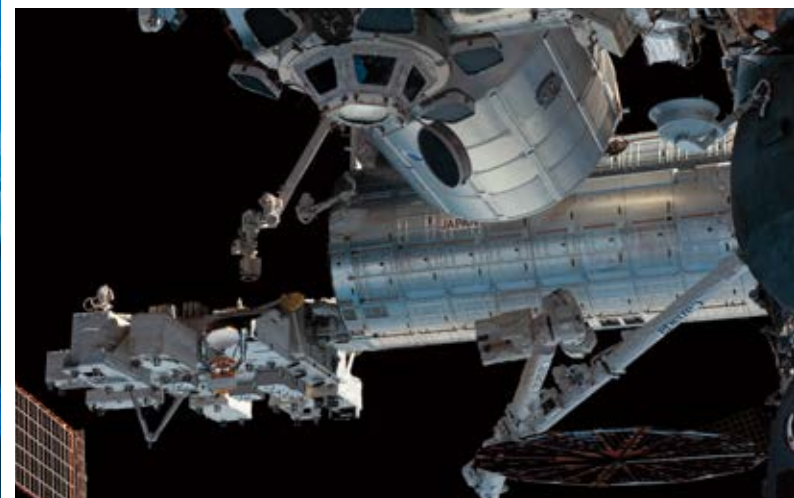


Top: The Milky Way stretches through the skies above the island of Sado, as described in a *haiku* by Matsuo Basho. (Photo: Aflo)

Top center: KOUNOTORI-9 links up with the ISS on a resupply mission. (Photo: JAXA/NASA)

Top right: *Fugaku Hyakkei: Torigoe no Fuji* ("One Hundred Views of Mount Fuji: Fuji Viewed from Torigoe"), an *ukiyo-e* woodblock print, features the Asakusa Astronomical Observatory (established 1782) with its armillary sphere against a backdrop of Mount Fuji. (Collection of National Diet Library)

Bottom right: Kibo, an ISS Experiment Module (Photo: JAXA/NASA)



## The historical development of astronomical observation in Japan

The people of Japan did not stop at merely appreciating outer space as part of nature, however. The construction of astronomical observatories around the 7th century led to the establishment of a calendar system based on factors such as the movement of the sun and the waxing and waning of the moon, and fortune-telling predictions were made in accordance with phenomena including solar and lunar eclipses and the appearance of comets. Murals in the Kitora Tomb thought to have been painted around the late 7th century to 8th century include one of the oldest astronomical charts in the world, revealing that people at the time were observing the celestial bodies and had accurate information on their movements. The introduction of Western knowledge in the 17th century brought further advances in research using telescopes and armillary spheres (instruments for astronomical observation), leading to the establishment of the foundations of modern astronomy.

## Moving toward coexistence and harmony in space development

Today, with the success of Japan's independently developed H3 Launch Vehicle and small satellite operations, the country is a global leader counted among the most advanced countries in space development. One characteristic that sets Japan further apart is that it does not view technological development

solely in a competitive sense but rather prioritizes cooperation with other countries in peacefully and sustainably utilizing outer space.

The International Space Station (ISS), a multinational collaborative project involving five international organizations, provides an example of this. With the Japan-developed Kibo module playing an important role as a research base and the KOUNOTORI (HTV) unmanned cargo transporter carrying out resupply missions, Japan has performed fundamental support functions for the project and received high appraisals from other countries.

Also, private-sector projects to clean up space debris represent a uniquely Japanese effort to maintain space as a sustainable place. In addition, Japan is actively working to provide technical support to up-and-coming countries involved with space development.

The Japanese view of outer space as an integral part of nature since ancient times seems well reflected in the Japanese approach here, considering space not as a place to pioneer and develop, but as a new venue for coexistence with the people of the world.

Supervised by Futamase Toshifumi  
Born 1953. Tohoku University Professor Emeritus specializing in astrophysics. His written works include *Nihonjin to Uchu* ("The Japanese People and Outer Space") and *Kiso kara Manabu Uchu no Kagaku: Gendai Tenmongaku e no Shotai* ("Learning Space Science from the Fundamentals: An Invitation to Modern Astronomy").



# Japanese Technology Contributes to Space

Japanese space technology is intended to facilitate the peaceful use of outer space. It continues to advance, tackling global challenges, such as space debris and climate change.

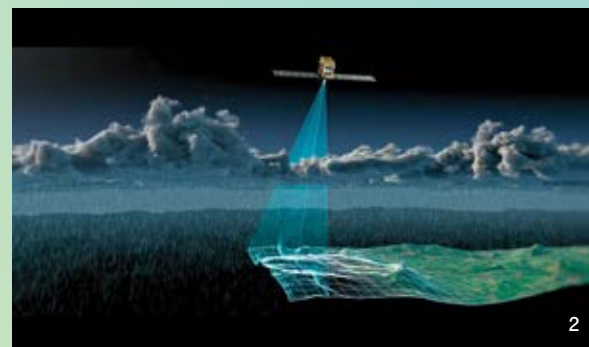


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## Small Satellites Capture Data to Help Solve Climate Change and Other Global Issues

Synthetic Aperture Radar (SAR) satellites use microwaves to record conditions related to the Earth's surface structures. With the capacity to record large areas at high resolution, regardless of weather conditions or time of day, these satellites have recently been used to determine the scale of natural disasters and to assess ground and climate change risks.

Synspective Inc. has developed low-cost mass-production technology to manufacture small SAR satellites, up to one-tenth the weight of conventional large satellites. These satellites have a foldable antenna that, when deployed, measures as long as a large satellite antenna; are equipped with a 1kw-class amplifier; and deliver excellent thermal control that keeps the satellite within a tolerable temperature range, making them less subject to failure during orbit. By constructing a satellite constellation, a system in which many satellites are launched into the same orbit and operate in a coordinated manner to simultaneously communicate and observe a wide area, Synspective has been working to create a system of multiple satellites capable of recording data on the entire planet in quasi-real time. The company has built a track record of providing earthquake and flood damage data to government offices and other entities in Japan and is able to anticipate damage from many cases of land subsidence outside of Japan, as well. Synspective is expanding into Asia and North America and plans to take on the challenges involved in solving issues unique to those regions.



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1. StriX is a small, lightweight 100 kg-class SAR satellite about 1/10th the size of a large satellite. In the latter half of the 2020s, 30 of these SAR satellites will form a constellation.
2. Computer graphic image of a small SAR satellite recording data. The satellite transmits microwaves and then receives the microwaves reflected back off the earth's surface. Microwaves are able to penetrate cloud cover, enabling the recording of data in any weather conditions, day or night.
3. General Manager of Synspective Inc. (left) at the signing of a Memorandum of Understanding with Kazakhstan on the use of small SAR satellites to prevent disasters (Photos: Synspective Inc.)



1



2

1. Computer graphic image of the ADRAS-J satellite approaching debris (right) for close-range observations
2. ADRAS-J at the time of development (Photos: Astroscale Inc.)

## Preparations for Operation Space Clean

It is estimated that over 100 million pieces of space junk are orbiting around Earth, including debris from defunct satellites and rockets that could cause extensive damage if they collide with satellites or space stations. Astroscale Inc. has taken on an extremely unusual mission, a rare global effort to remove debris hindering space exploration. Launched in 2024, the ADRAS-J satellite is now safely closing in on in-orbit debris moving at ultra-high speeds of 7-8 kilometers per second.

Initially several thousand kilometers relative to each other, but they have succeeded in reducing that distance to 15 meters, among other things. Astroscale is moving ahead with the development of ADRAS-J2, a satellite capable of removing pieces of debris as large as 11 meters in length.

## Driving Asian Space Programs and Human Resource Development

Hokkaido University, located at the north land of Japan, is one of the few universities in the world where researchers from the engineering department, with its focus on developing rockets and other equipment, engage in friendly competition with researchers in the science develop optical instruments for onboard satellites, and science, agriculture, and fisheries departments, who analyze the data recorded by satellites and spacecraft. Part of Hokkaido University's Institute for Integrated Innovations the Space Mission Center collaborates with private companies and neighboring universities on a variety of different space missions. The center has developed a number of new technologies, including engine systems for small satellites and 50kg-class nanosatellites.

The Space Mission Center has also worked since 2015 with the Philippines to develop the country's first satellite, which led to establish the Philippine Space Agency (PhilSA). These efforts have expanded to other countries in Southeast Asia, and the "Asian Microsatellite Consortium" has been established with nine Asian countries participating, led by Hokkaido University and Tohoku University. An Asian space development network base is taking shape in Hokkaido.



1



2

1. The hybrid kick motor for small satellites developed by the Laboratory of Space Utilization of Hokkaido University is useful in launches of multiple small satellites on a single rocket that are individually placed into their respective intended orbits. (Photo: Laboratory of Space Utilization of Hokkaido University)
2. A lab for young researchers from countries in Southeast Asia (Photo: Hokkaido University / Tohoku University)



# People Creating Space

Reproducing the celestial night sky and generating human-made shooting stars. These are new modes of space created by Japanese engineers taking on new challenges.

Photos: Furusato Mai

## Planetarium Creator Crafts Star-Filled Skies

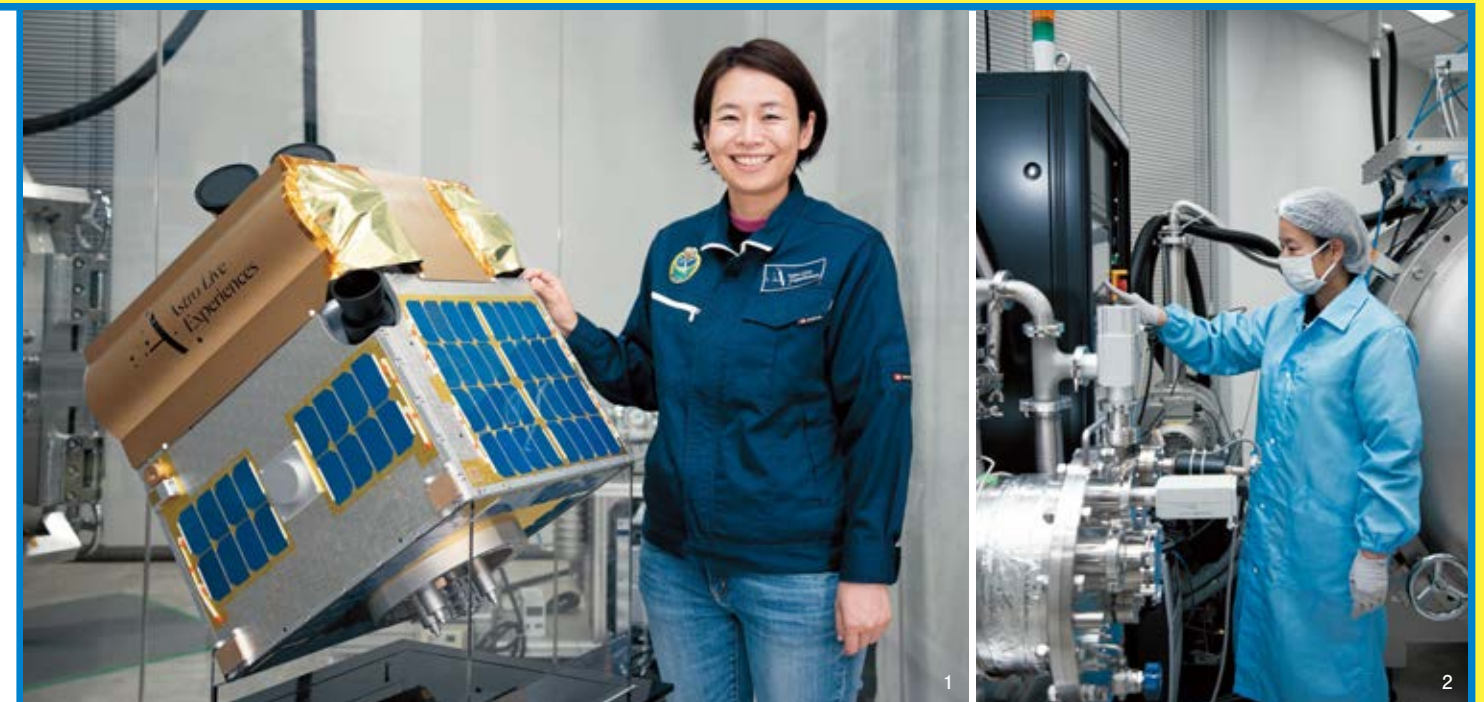
Planetariums reproduce the starry night sky by projecting star-like images onto a screen on a domed ceiling. The optical planetarium, capable of projecting high-resolution star-like images using a star plate and lenses, utilizes an innovative new projector from planetarium creator Ohira Takayuki.

In 1998, Ohira released the MEGASTAR, a planetarium projector that simulates 1.7 million stars, over 100 times more than conventional projectors. The sight of all of the Milky Way's countless stars astonished the world. Subsequent improvements were made, and later versions projected even more stars, with the ultra-precision GIGAMASK star plate, which can project 1.2 billion stars, developed in 2015. The holes drilled in this baseplate are minute, the smallest measuring just 180 nanometers (18/100,000 mm) in diameter.

"The stars in the night sky that are visible to the human eye are only a fraction of what is there. In reality, countless stars shine down from outer space, and in a planetarium you catch a glimpse of what is there. I hope this experience lets people feel the infinite expanse of the universe."

Ohira also developed HOMESTAR, an optical planetarium incorporating MEGASTAR technology for home use. Allowing people to enjoy the full stars from the comfort of their own homes, this planetarium projector is gaining popularity around the world. "I hope these home planetariums will inspire an interest in space for more children. I would love it if a child who had a home planetarium ventured out into space one day and discovered unknown forms of life."

1. Ohira holds the latest small-sized MEGASTAR-Neo II planetarium projector.  
2. One of the GIGAMASK ultra-precision star plates. Reproducing approximately 200–300 million stars per plate in star-rich areas, the projector's 32 plates together project some 1.2 billion stars.  
(Photo: Ohira Tech Ltd.)  
3. The HOMESTAR series of home optical planetarium projectors. The twinkling feature added in 2021 offers users an even more realistic starry night sky at home.  
(Photos: SEGA FAVE CORPORATION)



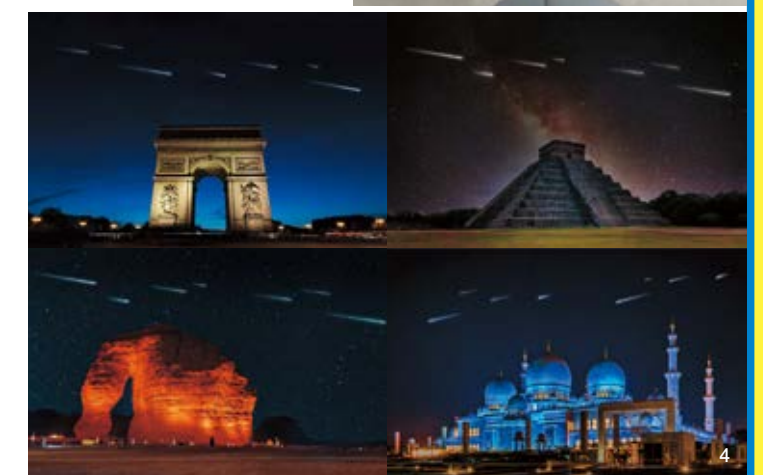
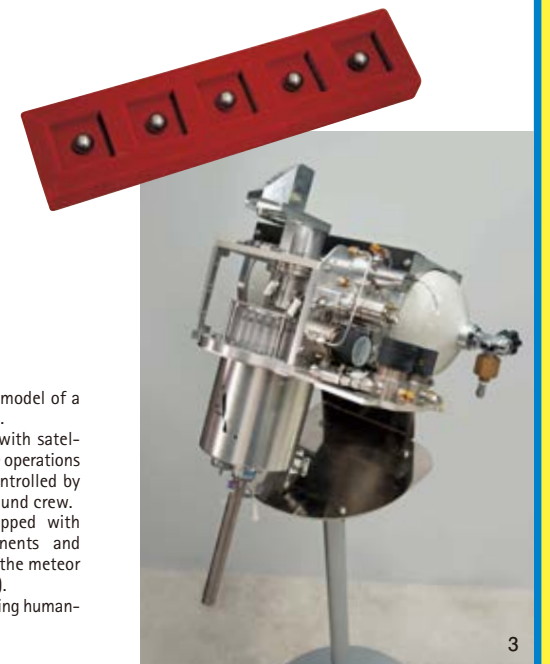
## World's First Attempt to Generate Human-Made Shooting Stars

"I want to make shooting stars that will fall where and when I want them to." Okajima Rena was inspired by this idea while watching the Leonid meteor shower as an undergraduate student. Going on to found ALE Co., Ltd., she is now the first in the world to take on this unprecedented challenge.

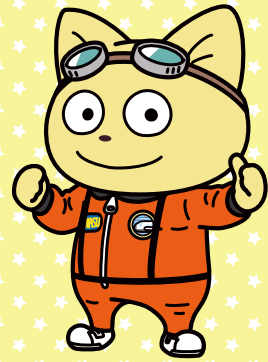
Human-made shooting stars are made up of "meteor particles," metal particles about 1 cm in diameter. When released from a satellite, the meteor particles fall toward the Earth, burning up at high temperatures due to adiabatic compression when they enter the Earth's atmosphere. From the ground, these falling particles look like shooting stars. "It is the same principle as actual shooting stars, when we observe cosmic dust burning in the atmosphere. But the shooting stars we create are brighter so they stand out more clearly against the urban sky, and we can watch them fall for longer," she says. Many future applications are anticipated, including as a new mode of entertainment decorating the sky with color.

At the same time, the atmospheric data that these shooting star satellites will record when released will be collected and is expected to be useful in climate change analysis. Okajima, who says, "I'd like to bring space into the cultural sphere," has a bright and expansive vision for the future.

1. Okajima poses with a model of a satellite launched by ALE.  
2. Okajima experiments with satellite functionality. Satellite operations and power supply are controlled by instructions from the ground crew.  
3. The satellite is equipped with mission system components and the section that releases the meteor particles (pictured above).  
4. Artistic rendering of falling human-made shooting stars  
(Photo: ALE Co., Ltd.)

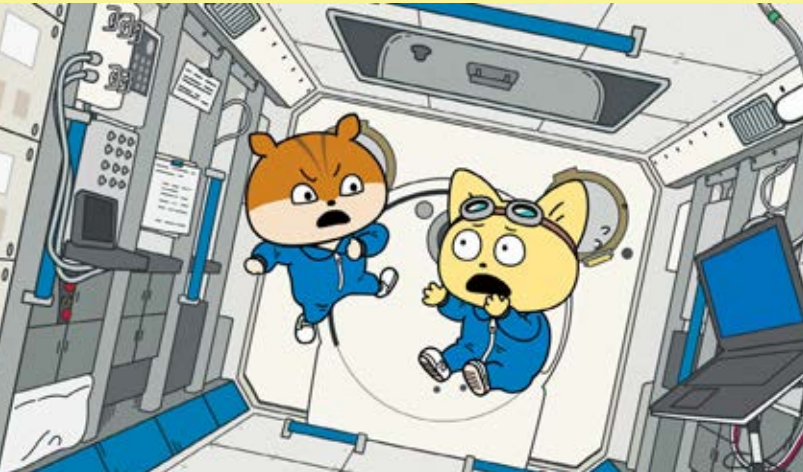






# Who Loves Space Anime?

Japanese space anime features many different types of characters in spectacular space settings. Explore the films that inspire children to dream of far-off galaxies and long to visit space someday.



## Uchuu Nanchara Kotetsu-kun (Space Academy)

Protagonist Kotetsu-kun, aiming to become an astronaut, has enrolled in the Space Academy. He and his group of friends, each with their own unique aspirations, study at the academy as they dream of becoming astronauts, rocket engineers, and even a space food chef. Viewers laugh along with the comical interactions between interesting characters while at the same time learning the answers to such fundamental questions as "How was the universe created?" and "Does space have a smell?"

©Space Academy / Chokkura Tukimade linkai 2



## Space Brothers

Older brother Nanba Mutta aspires to become an astronaut despite being over 30 years old, while younger brother Hibito lands on the moon, fulfilling his dream a step ahead of his brother. Focusing on their efforts and setbacks, the TV series depicts the challenges they and their friends face in taking on space exploration. A carefully written and realistic look at contemporary space development, *Space Brothers* features the Japan Aerospace Exploration Agency (JAXA) and other real-life organizations, attracting scores of fans who are themselves involved in the space industry.

©Koyama Chuya / Kodansha Ltd. / YOMIURI TELECASTING CORPORATION / A-1 Pictures



## The Galaxy Express 999

This science fiction work, airing from 1978 to 1981, was based on the manga by Matsumoto Leiji. The story follows the adventures of Hoshino Tetsuro, a young boy who boards the space train 999 with a mysterious woman, Maetel, in search of a mechanical body that will give him eternal life. The series examines human folly and weakness, as well as the idea that life is precious, as it explores the relationships between the people and life forms they meet on the planets along the intergalactic train line. The Galaxy Express 999 is modeled after the steam locomotive, and the iconic image of the whistling train speeding through the galaxy has fascinated legions of viewers.

©Matsumoto Leiji / Leijisha / TOEI ANIMATION CO., LTD.



## The Orbital Children

Set in 2045, a time when space travel has become altogether commonplace, this anime series follows five children stranded in a space hotel following a catastrophic accident. Overcoming one difficulty after another, the children attempt to escape unassisted. While the series brings a sense of urgency to its depiction of the extreme conditions in space, it also presents a realistic image of future in space, complete with convenience stores, the Internet, and comfortable human coexistence with AI.

©MITSUO ISO / avex pictures / The Orbital Children Production Committee





Tottori

## Daisen

Known as "the stargazing prefecture," all of Tottori Prefecture boasts beautiful views of star-filled skies. The 1,729-meter Daisen mountain in the western part of the prefecture offers particularly outstanding stargazing. Commemorate the experience with a photo in front of a starry sky that changes hour-by-hour, season-by-season, or even the Milky Way so clear it is visible to the naked eye. (Photo: "Starry Sky Photo Tour" sponsored by Daisen Tourism Bureau)



A Virtual Journey through Japan

# Space Experiences Across Japan

Stargaze under the stunning night sky; get a taste of the weightlessness that real astronauts experience. Spots around Japan let you feel the vast expansiveness of the cosmos up close and personal.



Fukuoka

## Fukuoka City Science Museum

Bringing optical and digital technologies together, the museum's planetarium projector, the most advanced in the world, projects a stunning starry sky onto a large dome screen 25 meters in diameter. The museum was selected as the venue for the conference of the International Planetarium Society 2026, gaining worldwide attention. (Photos: Fukuoka City Science Museum)



Ishikawa

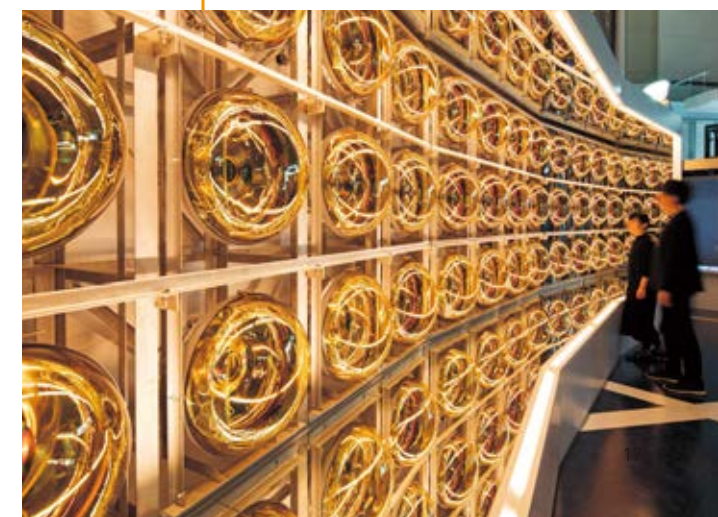
## Space Science Museum Cosmo Isle Hakui

Step inside the distinctive flying saucer-like museum to see an array of spacecraft and probes that have returned home from their time in outer space. Among them, you will not want to miss the LE-5, Japan's first engine used in a rocket launch. (Photos: Space Science Museum Cosmo Isle Hakui)

Gifu

## Hida Space Science Museum Kamiokalab

Neutrinos are tiny subatomic particles, much smaller than atoms, that travel through space. The large wall-sized model of the Super-Kamiokande is faithfully reproduced here with the same materials as the actual sensor. It is a spectacular sight to behold. (Photo: Hida Space Science Museum Kamiokalab)



Hokkaido

## Asahikawa Science Museum SCI-PAL

The various hands-on equipment displays at SCI-PAL include the Uchu-goma (pictured), which allows visitors to experience weightlessness, and the Moon Jump, which simulates the gravity of the moon's surface. Visit the museum to immerse yourself in what it feels like to be an astronaut. (Photo: Asahikawa Science Museum SCI-PAL)



Ibaraki

## JAXA Tsukuba Space Center

Established in 1972, this is the nerve center of JAXA, Japan's space program. The vast site, measuring approximately 530,000 m<sup>2</sup>, is home to a concentrated group of facilities that develop and operate rockets and satellites. Visitors can view a prototype of the H-II, a rocket developed and built in Japan (pictured), as well as a full-scale model of Japan's first lunar exploration satellite, Kaguya (SELENE, Selenological and Engineering Explorer). (©JAXA)



Tokyo

## Mitaka Campus, National Astronomical Observatory of Japan

Established in 1888 and relocated to Mitaka in 1924, this observatory institute lies at the heart of Japanese astronomical research. Visitors can tour the historical observation facilities dotted around the campus. One of the highlights is the refracting telescope with 65cm aperture installed at the Observatory History Museum. It remains the largest refracting telescope in Japan today. (Photo: National Astronomical Observatory of Japan)



Tokyo

## Tokyo Skytree Town® Campus, Chiba Institute of Technology

On the 8th floor of the Solamachi complex at the base of the 634m-tall Tokyo Skytree is an advanced robotics and space learning center. This interactive facility is open for the public to enjoy learning about cutting-edge technology and research findings. Pictured is the full-scale model of the Hayabusa2 on display. (Photo: Tokyo Skytree Town® Campus, Chiba Institute of Technology)





# Japanese Space Food

A taste of home  
in space



Japanese astronaut Yui Kimiya enjoys soy sauce ramen noodles designed to be easy to eat in a microgravity environment (right). (Photo: JAXA/NASA)



Hot water is added to Nisshin Yakisoba U.F.O. Instant Noodles, which are ready to eat when the liquid has been absorbed. (©JAXA)



This canned fish was developed using mackerel from Fukui Prefecture. Seasoned with soy sauce, it has a soft texture. (©JAXA)



(©JAXA)

The space food version of standard Japanese convenience store fried chicken, Space Kara-age Kun, is freeze-dried to retain its delicious crispy texture. (©JAXA)



Space food is essential for surviving out in space. When manned flights began in the 1960s, astronauts had only some solid foods and a liquid diet from tubes, which did not rate well in terms of taste. Over the more than half century since, though, space food has undergone a transformation.

It was the International Space Station (ISS), collaboratively operated by 15 different countries from 1998, that helped drive these changes. Astronauts on the ISS eat a combination of standard meals provided by the U.S. and Russia and bonus meals that other astronauts bring from their home countries.

Japanese astronauts choose the bonus meals they will bring from among the space food developed by Japanese food manufacturers and independently certified by the Japan Aerospace Exploration Agency (JAXA). These meals must meet strict certification standards, with rigorous requirements regarding facility hygiene, packaging, and cooking methods to ensure that packages do not burst and food does not scatter in a microgravity environment. Of course, they must also be tasty.

In Japan, with its high food processing and hygiene management standards, the number of certified space food products has climbed to

56 as of March 2025, thanks to the participation of food manufacturers from across the country. One of these is canned mackerel developed over 14 years by high school students in Fukui Prefecture.

The established Japanese food maker that invented the world's first instant noodles in 1958 developed to be easy to eat even in a microgravity environment, with a thick broth and chunky noodles that keep their shape even when rehydrated in hot water. Fried chicken, a Japanese convenience store standard, is freeze-dried and transformed into space food that boasts the same delicious crispiness.

The Japanese space food menu is quite diverse, with everything from main dishes to sides, sweet treats and beverages that reflect traditional Japanese food culture. Curry rice, *onigiri* rice balls, *yakisoba*, and stewed hamburger steak offer the unpretentious, comforting flavors of Japanese home cooking.

Providing a moment of relaxing comfort in the depths of space far above the earth, healthy and delicious Japanese space food is very popular with astronauts from other countries, as well.

Japan also delivers fruits and vegetables to space. Pictured here, Japanese apples brought to the ISS by the uncrewed supply vehicle KOUNOTORI 6 (Photo: JAXA/NASA)







## Southern Island Gateway to Space

# Tanegashima Island

Clear turquoise ocean and blue sky unfolding as far as the eye can see, teeming with lush green nature, Tanegashima sparks thoughts of a vast universe.



1. H3 rocket launch at the Tanegashima Space Center ©JAXA
2. Spectators watching the launch in the Ebinoe Observation Park (Photo: Tanegashima Tourism Association)
- 3, 4. At the Space Science and Technology Museum at the Tanegashima Space Center, visitors enjoy learning about the history of the space program and the latest technology. Take a picture that looks like you are floating weightless on the space station at the museum's photo spot. ©JAXA
5. Rocket Curry, a signature item on the menu at Chuhan-ya, the Tanegashima Space Center cafeteria

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6, 7. Teppo Festival celebrates the arrival of firearms to Japan. (Photo: Tanegashima Tourism Association / Tanegashima Firearms Preservation Society)  
8, 9. *Tanebasami* scissors are individually hand-forged by master blacksmiths. (Photo 8: Teppokan (Firearms Museum), Photo 9: MATHERuBA Co., Ltd.)



13



14



15

13. Exploring the mangrove tunnels by kayak is one of the most popular activities on Tanegashima. (Photo: BLUE PEACE Tanegashima)  
14. Chikura no Iwaya, the largest sea cave on Tanegashima, was formed by erosion from the rough Pacific Ocean waves. (Photo: PIXTA)  
15. Dive into the beautiful shallow ocean waters to see fish you will only find in the tropics. (Photo: Dive Award)

Located at the south of the Japanese archipelago, off the southern coast of Kagoshima Prefecture, Tanegashima Island is about a 40-minute plane trip from Kagoshima Airport. A high-speed boat journey takes about an hour and a half. Blessed with a mild climate and stunning natural environment, the island is home to the Tanegashima Space Center, a frontline base for Japan's space program.

Against the backdrop of the turquoise sea, visitors from across Japan gather on launch days to catch sight of soaring rockets, climbing with a roar and flash into the sky. There is a reason why this space center, boasting the most beautiful rocket launch site in the world, was built in the south of Japan. When a rocket is launched in an easterly direction, the kinetic energy of the Earth's rotational speed adds to the speed of the rocket. The closer to the equator,

the faster the Earth's rotation, and the greater the force transmitted to the rocket. At 30 degrees north latitude, Tanegashima is relatively close to the equator, and it has vast areas of open land, and for these reasons, the island was selected as Japan's gateway to space.

Looking back centuries, Tanegashima was the site of an event that catapulted the island to the forefront of Japanese history. The Portuguese who drifted ashore of this island in the 16th century introduced firearms to Japan, significantly impacting the country during its Warring States period. Teppo Matsuri, a festival that commemorates the arrival of firearms with participants dressed in period costume test-firing guns, is still held every year. *Tanebasami* scissors, which came into Japan along with the guns, are mid-point shears with the pivot positioned

halfway between the handle and the blades. Prized for their exceptional sharpness and convenient ambidextrous design, these scissors have become a traditional craft for which Tanegashima is well known. In the 17th century, cultivation of the sweet potato, which was introduced by way of the continent, began. Improvements have yielded the Annou Imo, a variety of sweet potato enjoyed for its high sugar content and creamy texture. Tanegashima is also known for confections that make the most of the variety's full-bodied sweetness.

You cannot fully appreciate Tanegashima without viewing its stunning nature. A natural habitat for subtropical plants that are rare in mainland Japan, the island is home to mangrove forests that dot the riverside. Explore the water's edge in a kayak to immerse yourself in the beauty

of old-growth forests. Along the shoreline, you'll also find a beautiful landscape of rocky outcrops eroded by waves that harmonize with the ocean's emerald waters. Marine sports in these waters are an exceptional pleasure. Dive below the water's surface to be mesmerized by a colorful world of tropical fish and coral reefs.

With vast skies and open sea, Tanegashima is an island for relaxing as time flows by at a leisurely pace on a very special journey, contemplating all the bounty that our Earth and vast universe have to offer.



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10. Richly sweet and creamy, Annou Imo sweet potatoes offer a mouthful of rich and creamy goodness. (Photo: PIXTA)  
11. Gelato, made with Annou Imo, from Tanegashima Gelato HOPE  
12. Pie dough pastry filled with Annou Imo paste, from Sakaiya confectionery shop



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## Tanegashima Area Map

- ① JAXA Tanegashima Space Center
- ② Ebinoe Observation Park
- ③ Tanegashima Gelato HOPE
- ④ Confectionery Shop Sakaiya
- ⑤ Chikura no Iwaya

•Access  
Approximately 40 minutes from Kagoshima Airport to Tanegashima Airport by plane  
Approximately 90 minutes from Kagoshima Main Port South Wharf to Nishinoomote Port by high-speed boat

•Contact information  
Tanegashima Tourism Association official website  
#tanetabi  
<https://en.tanekan.jp/>



Souvenirs of



Japan 29



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Infinite Worlds on Your Desk:

## Space-Themed Stationery Items



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1. Three-dimensional magnets depict the Earth, Moon, Jupiter, Saturn, and other heavenly bodies encased in glass (Photo: LUSTERX, INC.)
2. Letter set with starry sky stationery out of windowed envelope (Photo: Vixen Co., Ltd.)
3. Stapler inspired by a spaceship with detached rocket (Photo: Seto Craft Co., Ltd.)
4. Japanese *washi* tape decorated with a skyful of stars and moons (Photo: LALA Clover.)
5. Ballpoint pen shaped like the H3 rocket (Photo: BCC Co., Ltd.)

A fascinating and magnificent universe unfolds across your desk with stationery goods designed with space motifs.

Masking tape with a scattered star-and-moon pattern in gold and silver is a stunning way to create strips of beautiful starry sky. Add a bit of decorative wonder to your letters or journal pages. The starry sky letter set is designed to form a celestial map when the writing paper is placed in the envelope. Receive a letter like this, and you surely can't help but gaze up into the night sky. And explore your own personal universe, which you can build on your refrigerator or whiteboard with planet-themed magnets.

Another stationery item with a space-exploration theme, a ballpoint pen modeled after Japan's massive H3 rocket, features the mascot for the new space station supply vehicle, HTV-X, which is currently in development, dangling from the end. A spaceship-shaped stapler sitting on your desk will motivate you to tackle even the most mundane tasks as well.

Collect space-themed stationery items to add a sense of fun to functionality and create a mood of space exploration at your desk.

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