



Press Release

January 14, 2025
ispace, inc.

ispace Completes Mission 2 Milestone Success 1

All Launch Preparations Are Completed in Advance of a Scheduled Launch on Jan. 15, 2025

TOKYO –January 14, 2025 – ispace, inc. (ispace) ([TOKYO: 9348](#)), a global lunar exploration company, announced today that all launch preparations are complete in advance of its SMBC x HAKUTO-R Venture Moon Mission 2 launch featuring the RESILIENCE lunar lander and TENACIOUS micro rover, scheduled to launch on Jan. 15, 2025, at 06:11 UTC.



The RESILIENCE Lunar Lander seen integrated into the SpaceX Falcon 9 Launch Vehicle Adapter 7 days before the planned launch, in the Payload Processing Facility, U.S. Space Force Station, Fla.

The Mission 2 RESILIENCE lunar lander was transported to Cape Canaveral, Fla., in November 2024. Since then, members of the ispace AIT team have been working to integrate the lander into the SpaceX Falcon 9 rocket at a facility near the launch site. All preparations for loading the fairing and launch have now been completed.

HAKUTO-R Mission 2 Launch Schedule

Launch Date: Wednesday, January 15, 2025*

Launch Time: 06:11 UTC

1:11 a.m. (U.S. Eastern Standard Time)

3:11 p.m., Wednesday, January 15, 2025 (Japan Standard Time)

Launch Site: Space Launch Complex 39A, Kennedy Space Center, Florida, U.S.

*The above dates and times are subject to change depending on weather and other conditions.

“We are very happy to have completed the first mission milestone as planned and are now looking forward to the launch tomorrow on the 15th,” said Takeshi Hakamada, Founder & CEO of ispace. “It has been about one year and nine months since the first private landing attempt in 2023. I hope that you will join us in watching the launch as we rise up from that point, making use of our experience and our resilience. A rocket launch always moves people’s heart, so let enjoy this moment together.”

Livestream Viewing Event

ispace will host a global livestream event that will cover the launch and deployment of the RESILIENCE lunar lander and TENACIOUS micro rover carrying customer payloads from the SpaceX Falcon 9 rocket. The event will be hosted from Tokyo and stream via social media channels to viewers around the world.

When: Wednesday, January 15, 2025, at 2:20 p.m. JST

Where: English: www.ispace-inc.com/launch
Japanese: www.ispace-inc.com/uchiage

Mission 2 Milestones

ispace has released a transparent set of criteria known as Mission 2 Milestones between launch and landing and aims to achieve the success criteria established for each of these milestones. The results from this mission as part of the HAKUTO-R lunar exploration program, will be weighed and evaluated against the criteria and lessons learned will be incorporated into future missions already in development.

Mission 2 Milestones
We have set 10 milestones, which we aim to achieve during Mission 2. Each milestone has separate success criteria.

Success 1 [L+2-3 days]
Completion of Launch Preparations

- Complete all development processes of the RESILIENCE lunar lander before flight operations
- Contract and prepare launch vehicle, and complete integration of lunar lander into the launch vehicle
- Prove ability to flexibly manufacture and assemble landers in various geographic locations of the world

Success 2 [L+1 hour]
Completion of Launch and Deployment

- Complete successful separation of the lunar lander from the launch vehicle
- Reaffirm that ipace's lander design and structure is capable of withstanding the harsh conditions during launch on its second mission, offering valuable information towards future development and missions

Success 3 [Several hours]
Establishment of a Steady Operation State

- Establish communication link between the lander and Mission Control Center, confirm a stable attitude, as well as start stable generation of electrical power in orbit

Success 4 [L+1-2 days]
Completion of first Orbital Control Maneuver

- Complete the first orbital control maneuver, setting the lander on a course towards the Moon

Success 5 [L+1 month]
Completion of Lunar Flyby

- Complete a lunar flyby approximately one month after launch
- Begin Deep Space Flight operations

Success 6 [L+3-3.5 months]
Completion of all Deep-Space Orbital Control Maneuvers before LOI

- Complete all planned deep space orbital control maneuvers by utilizing gravity assist effects and successfully target the first lunar orbit insertion maneuver
- Reaffirm the deep-space survivability of ipace's lander designs, as well as the viability of ipace's orbital planning

Success 7 [L+4 months]
Enter Lunar Orbit

- Complete the first lunar orbit insertion maneuver and confirm the lander is in a lunar orbit
- Reaffirm the ability of ipace to deliver spacecraft and payloads into stable lunar orbits

Success 8 [L+4.5 months]
Completion of all Orbital Control Maneuvers in Lunar Orbit

- Complete all planned lunar orbital control maneuvers before the landing sequence
- Confirm the lander is ready to start the landing sequence

Success 9 [L+4.5 months]
Completion of Lunar Landing Sequence

- Complete the landing sequence, verifying key landing abilities for future missions

Success 10 [L+4.5 months]
Establish Steady System State after Landing

- Establish a steady telecommunication and power supply for the lander on the lunar surface after landing

HAKUTO-R

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*Timeline and contents subject to change

		Milestone	Milestone Success Criteria
Success 1	Complete	Completion of Launch Preparations	<ul style="list-style-type: none"> Complete all development processes of the RESILIENCE lunar lander before flight operations Contract and prepare launch vehicle, and complete integration of lunar lander into the launch vehicle Prove ability to flexibly manufacture and assemble landers in various geographic locations of the world
Success 2		Completion of Launch and Deployment	<ul style="list-style-type: none"> Complete successful separation of the lunar lander from the launch vehicle Reaffirm that ipace's lander design and structure is capable of withstanding the harsh conditions during launch on its second mission, offering valuable information towards future development and missions
Success 3		Establishment of Steady Operation State	<ul style="list-style-type: none"> Establish communication link between the lander and Mission Control Center, confirm a stable attitude as well as start stable generation of electrical power in orbit
Success 4		Completion of first Orbital Control Maneuver	<ul style="list-style-type: none"> Complete the first orbital control maneuver, setting the lander on a course towards the Moon
Success 5		Completion of Lunar Flyby	<ul style="list-style-type: none"> Complete a lunar flyby approximately one month after launch Begin Deep Space Flight operations
Success 6		Completion of all Deep-Space Orbital Control Maneuvers before LOI	<ul style="list-style-type: none"> Complete all planned deep space orbit control maneuvers by utilizing gravity assist effects and successfully target target the first lunar orbit insertion maneuver. Reaffirm the deep-space survivability of ipace's lander designs, as well as the viability of space's lunar planning.
Success 7		Enter Lunar Orbit	<ul style="list-style-type: none"> Complete the first lunar orbit insertion maneuver and confirm that the lander is in a lunar orbit Reaffirm the ability of ipace to deliver spacecraft and payloads into stable lunar orbits
Success 8		Completion of all Orbital Control Maneuvers in lunar orbit	<ul style="list-style-type: none"> Complete all planned lunar orbital control maneuvers before the landing sequence Confirm the lander is ready to start the landing sequence
Success 9		Completion of Lunar Landing Sequence	<ul style="list-style-type: none"> Complete the landing sequence, verifying key landing abilities for future missions
Success 10		Establish Steady System after Landing	<ul style="list-style-type: none"> Establish a steady telecommunication and power supply on the lunar surface after landing

Payloads

On board the RESILIENCE lunar lander will be commercial customer payloads including:

- **Water electrolyzer equipment:** From Takasago Thermal Engineering Co.
- **Food production experiment:** A self-contained module from Euglena Co.
- **Deep space radiation probe:** Developed by the Department of Space Science and Engineering, National Central University, Taiwan
- **Commemorative alloy plate:** Developed by Bandai Namco Research Institute, Inc. and modeled after “Charter of the Universal Century” from the animation Mobile Suit Gundam UC
- **TENACIOUS micro rover:** Developed by ispace-EUROPE, this rover will explore the landing site, collect lunar regolith, and relay data back to the lander. It will be equipped with a forward-mounted HD camera and a shovel.
- **Moonhouse:** A model house by Swedish artist Mikael Genberg that will be mounted on the rover

The RESILIENCE lander will serve as a cultural artifact, carrying a UNESCO memory disk that preserves linguistic and cultural diversity.

ispace is leveraging its global presence through its three business units in Japan, the U.S., and Luxembourg, for the simultaneous development of upcoming missions. Mission 2, featuring the RESILIENCE lunar lander, is led by ispace Japan and is now scheduled for launch on Jan. 15, 2025. In this mission, TENACIOUS micro rover developed by ispace Europe SA to be deployed on the lunar surface to conduct technological demonstration of regolith extraction as well as mobility on the lunar surface Mission 3, debuting the APEX 1.0 lunar lander, is led by ispace-U.S. and is expected to launch in 2026. Mission 6, which will utilize the Series 3 lander, currently being designed in Japan, is scheduled to be launched by 2027.

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About ispace, inc. (<https://ispace-inc.com>)

ispace, a global lunar resource development company with the vision, “Expand our planet. Expand our future.”, specializes in designing and building lunar landers and rovers. ispace aims to extend the sphere of human life into space and create a sustainable world by providing high-frequency, low-cost transportation services to the Moon. The company has business entities in Japan, Luxembourg, and the United States with more than 300 employees worldwide. For more information, visit: www.ispace-inc.com and follow us on X: [@ispace_inc](https://twitter.com/ispace_inc).