Press Release

November 13, 2026
Ispace, inc.

ispace Completes Preliminary Design Review (PDR)
for the Mission 3 ULTRA Lander

System-wide preliminary design established, incorporating engine modifications



Engineers inspecting the ULTRA lander's Structural Model (SM).

TOKYO—November 13, 2026—ispace, inc. (ispace) (TOKYO: 9348), a global lunar exploration company, announced today that it has completed the Preliminary Design Review (PDR) for the ULTRA lander to be used in Mission 3, scheduled for launch in 2028. The review established the system-wide preliminary design, incorporating the planned engine modifications.

ispace began development of the new "ULTRA" lander model in March of this year, integrating its Japanese and U.S. lander platforms in response to growing global demand for lunar development. The initiative aims to meet customer expectations for higher mission quality and improved development efficiency. At the same time, the company also announced plans to change the lander's engine configuration.[1]

As part of the recent Preliminary Design Review (PDR), ispace verified the overall propulsion system design reflecting the adoption of the engine supplied by Nammo, which was previously announced for integration into the ULTRA lander.[2] The review also confirmed the feasibility of the overall system design and established the design baseline, including key

parameters such as mass, power, and Delta-V. In addition, the company reviewed the implementation plans and design updates required across all subsystems as a result of the engine change.

[1] Related release: "ispace Announces 'ULTRA,' a New Lander Model Integrating Its Japanese and U.S. Lander Platforms"

[2] Related release: "ispace and Nammo Sign Memorandum of Understanding to Strengthen Long-Term Propulsion Supply-Chain Resilience and Procurement Cooperation"

For the development of our landers, ispace employs a systems engineering approach based on a phased project lifecycle methodology. At the completion of each development phase, a technical review is conducted to evaluate the results and determine whether the project is ready to advance to the next phase.

Completion of the Preliminary Design Review (PDR) represents a major development milestone, marking the conclusion of the preliminary design phase for the ULTRA lander system. Following the successful completion of this review, ispace will advance the ULTRA lander program into the next stage of development in preparation for the launch of Mission 3, scheduled for 2028.

Going forward, the company will carry out detailed design activities based on the preliminary design established through the PDR, with the objective of completing the Critical Design Review (CDR). Afterward, ispace will proceed with the manufacturing of the flight model to be used in Mission 3 and conduct a series of qualification and verification tests before advancing to launch preparation activities.

Lander development is a multi-year undertaking that progresses through the steady accumulation of technical design, verification, and validation activities, with each process building upon the last. At the same time, it can be challenging to communicate day-to-day development progress in a way that is both clear and meaningful. To provide greater visibility into the status of long-term development programs, ispace uses key development milestones, such as the Preliminary Design Review (PDR) and Critical Design Review (CDR), as indicators that the overall development process is progressing as planned, and announces the achievement of these milestones in a timely manner.

In October 2023, ispace was selected by Japan's Ministry of Economy, Trade and Industry (METI) under the Space Domain theme, "Development and Demonstration of a Lunar Lander," as part of the Small and Medium Enterprise Innovation Promotion Program (SBIR Phase 3), with a subsidy award of up to ¥12 billion. Under this program, the company is currently developing the ULTRA lander, with Mission 3 serving as its inaugural mission.

The ULTRA lander is a full-scale commercial lunar lander platform that has been enlarged and enhanced compared to the RESILIENCE lander operated during Mission 2. The spacecraft is expected to measure approximately 3.6 meters in height and 3.3 meters in width, have a dry mass of approximately 1,000 kilograms, and provide payload capacity of approximately 200 kilograms.

Statement of Takeshi Hakamada, Founder & CEO of ispace
"Completing the system-wide Preliminary Design Review (PDR) for the ULTRA lander marks an important step toward our planned 2028 launch. We have successfully advanced the design, including the engine replacement, and reached a key milestone that enables us to move into the next phase of development. Going forward, we will continue progressing the ULTRA lander program according to plan, with the goal of ensuring the success of Mission 3 and realizing sustainable lunar transportation services for the future," said Takeshi Hakamada, Founder & CEO of ispace.

Statement of Ryo Ujiie CTO of ispace
"The engine replacement represents a major design change that affects not only the propulsion system, but also many other aspects of the lander, including mass, power, and overall system integration. Completing the Preliminary Design Review (PDR) for the ULTRA lander after thoroughly evaluating these impacts across the entire system is a significant milestone for our development team. From here, we will continue advancing the program through detailed design, the Critical Design Review (CDR), and the manufacturing and testing of the flight model. As one team, we remain committed to steadily progressing development and achieving a successful Mission 3," said Ryo Ujiie CTO of ispace.

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