Press Release

December 23, 2025
ispace, inc.

ispace and JAXA Sign Agreement for Lunar Lander Propulsion System Study

TOKYO–December 23, 2025–ispace, inc. (ispace) (TOKYO: 9348), a global lunar exploration company, has signed an agreement with the Japan Aerospace Exploration Agency (JAXA) to conduct a study on "Resource Optimization of a Lunar Lander Propulsion System Using Electric Pumps."

Under the agreement, ispace and JAXA will jointly conduct a study on propulsion system optimization by applying an electric pump system to a lunar lander's propellant feed system. The study aims to achieve overall propulsion system mass reduction while minimizing the associated increase in power consumption. Additionally, based on optimization results, the study will evaluate the functional and performance requirements of the electric pump systems for lunar lander applications to enable enhanced mission capabilities.

Generally, most satellites and space probes have employed a pressure-fed propulsion system in which high-pressure tanks supply propellant to engines. However, this approach requires thick tank walls to withstand the high internal pressure, resulting in increased system mass. These challenges become more pronounced as spacecraft become larger, such as the ispace Series 3 Lander being developed in Japan.

ispace launched two independently developed lunar landers during its Mission 1 and Mission 2 operations, demonstrating not only its design expertise but also its reliable transport capability to lunar orbit relying on an effective guidance, navigation and control system. This agreement will expand the applicability of the electric pump technology JAXA has been researching and will contribute to maximizing the outcomes of Japanese space research and development activities.

Statement of Takeshi Hakamada, Founder & CEO of ispace
"We are pleased to conduct this important study with JAXA, which will lead to the optimization of the propulsion system for lunar landers. We expect the results and experience gained from ispace's previous lunar missions to be utilized in this new research and development. We anticipate that this optimization study will contribute to improving the system efficiency of lunar landers," said Takeshi Hakamada, Founder & CEO of ispace.

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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.