Press Release

December 14, 2022
ispace, inc.

ispace Successfully Captures Images and Obtains Data from the Lander's Onboard Camera in Space

TOKYO—December 14, 2022—ispace, a global lunar exploration company, is pleased to announce that it has successfully taken images and transmitted them to the HAKUTO-R Mission Control Center (MCC). ispace's camera, located on top of the lander, will continue to record images throughout the mission. The lander continues to maintain a stable attitude and power supply.

Image of the Earth about 19 hours after separation from the launch vehicle.
The shape resembling a crescent Moon in this image is Earth, partially lit by the Sun. The lower right part of the image shows a plate, containing HAKUTO-R corporate partner logos (partners as of March 2022).

Along with the company's lunar transportation service, which brings customers payloads to the lunar surface, the lunar data service is expected to become an important revenue stream. In the medium term, ispace plans to collect and process various lunar data (image data, environmental data, telemetry, resource information, etc.) and provide them to our clients for use in lunar surface development. The fact that data was recorded by an ispace-owned camera and then successfully transmitted to our MCC represents the first step towards realizing ispace's planned data business. This technical milestone establishes the foundation for ispace's future data business operations.

We also consider this to be a major milestone from a technological standpoint. In addition to the in-house development of an optical camera that can withstand the space environment, many of the lander's own technological elements were also involved in the acquisition of this image data, including attitude control to aim the camera at the target and communications to transmit the image data to Earth.

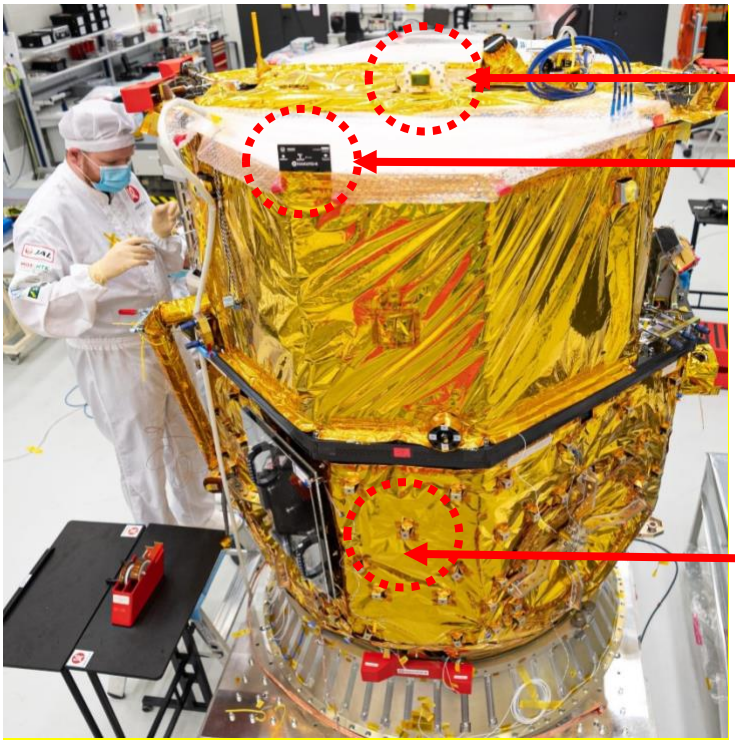
ispace has further successfully acquired images taken by one of the cameras of the Canadensys lunar imaging system: one of our Mission 1 payloads.
This is an image showing the Earth and the launch vehicle’s second stage, taken about 2 minutes after the lander separated from the rocket.
The imaging system is mounted on the sides of the lander and will periodically take images throughout the mission.

Image showing the Earth and the launch vehicle’s second stage, taken about 2 minutes after the lander separated from the rocket.

The lander is navigating about 440,000 km from the Earth as of 16:00 on December 14, 2022 (JST) and has already passed through the lunar orbit once. The customer payloads being transported by Mission 1 are currently being checked out individually, with some already confirmed. We plan to share the achievement of Success 3 in our Mission 1 Milestones after completion of our all-customer payload check-outs.

Ongoing operations are being carried out to determine the optimal timing for the initial orbit control maneuver, which is planned to result in the achievement of Success 4. ispace will share updates on HAKUTO-R Mission 1 as they become available.

■ **Position of the camera**



Mission 1 Milestones

For Mission 1, ispace has set 10 milestones between launch and landing, and aims to achieve the success criteria established for each of these milestones. Recognizing the possibility of an anomaly during the mission, the results will be weighed and evaluated against the criteria and incorporated into future missions already in development between now and 2025. Mission 2 and Mission 3, which also will contribute to NASA's Artemis Program, will further improve the maturity of ispace's technology and business model. Future announcements on progress of milestone achievement are expected to be released once attained.

#	Milestone	Success Criteria per Milestone
1	Completion of Launch Preparations	● Complete all development processes of the Series 1 lunar lander before flight operations. ● Contract and prepare launch vehicle, and complete integration of lunar lander into the launch vehicle.
2	Completion of Launch and Deployment	● Complete successful separation of the lunar lander from the launch vehicle. ● Prove that the lander's structure is capable of withstanding the harsh conditions during launch, validating the design and gathering information towards future developments and missions.
3	Establishment of a Steady Operation State (*Initial Critical Operation Status)	● 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. The completion of this step verifies the integrity of lander core systems and customer payloads.
4	Completion of first orbital control maneuver	● Complete the first orbital control maneuver, setting the lander on a course towards the Moon and verifying operation of the main propulsion system, as well as related guidance, control, and navigation system.
5	Completion of stable deep-space flight operations for one month	● Prove that the lander is capable of steady deep-space flight by completing a nominal cruise and orbital control maneuvers over a 1 month period.
6	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 1st lunar orbit insertion maneuver. This stage proves the ability of the lander's deep-space survivability, as well as the viability of ispace's orbital planning.
7	Reaching the lunar gravitational field / lunar orbit	● Complete the first lunar orbit insertion maneuver and confirm the lander is in a lunar orbit, verifying the ability of ispace to deliver spacecraft and payloads into stable lunar orbits.
8	Completion of all orbit 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.
9	Completion of lunar landing	● Complete the landing sequences, verifying key landing abilities for future missions.
10	Establishment of a steady system state after lunar landing	● Establish a steady telecommunication and power supply on the lunar surface after landing to support customer payloads' surface operations.

About 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 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 offices in Japan, Luxembourg, and the United States with more than 200 employees worldwide. ispace technologies U.S., inc. is part of a team led by Draper, which was awarded a NASA Commercial Lunar Payload Services (CLPS) Program contract to land on the far side of the Moon by 2025 (as of November 2022). Both ispace, and ispace EUROPE S.A. (ispace EU) were awarded contracts to collect and transfer ownership of lunar regolith to NASA, and ispace EU was selected by ESA

to be part of the Science Team for PROSPECT, a program which seeks to extract water on the Moon.

Established in 2010, ispace operated “HAKUTO” which was one of five finalist teams in the Google Lunar XPRIZE race. The company’s first mission as part of its HAKUTO-R lunar exploration program launched on December 11, 2022, from the United States on a SpaceX Falcon 9 rocket and is currently expected to land on the lunar surface around the end of April 2023. ispace has also launched a lunar data business concept to support new customers as a gateway to conduct business on the Moon.

For more information, visit: www.ispace-inc.com; Follow us on Twitter: @ispace_inc.

###