

LUPEX Mission

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LUPEX Mission Latest News

Recently, the Prime Minister of India welcomed the agreement between the Indian Space Research Organisation and the Japan Aerospace Exploration Agency for the Chandrayaan-5 mission under the Lunar Polar Exploration (LUPEX) programme.

About LUPEX Mission

- It is jointly developed by **ISRO and Japan Aerospace Exploration Agency (JAXA)**.
- **Objective:** To **explore the moon's southern polar region**, investigating the presence of water and other elements, potentially in the form of surface ice.
- It **aims** to showcase **innovative surface exploration technologies**. The special focus is on vehicular transport and lunar night survival.
- It features both a **lander and a rover**.
- JAXA is **responsible for developing and operating the rover**, and **ISRO** for developing and **operating the lander that** will carry the rover.

- The rover will drive on its own to search for areas where water is likely to be present and sample the soil by digging into the ground with a drill.
- The plan is to acquire data by analyzing the collected samples in detail with observation equipment mounted on the rover.
- The rover will be equipped with instruments for **measuring the water content of regolith** (lunar sand), drilling, and sampling, as well as with other world-first and world-leading technologies for the driving system and batteries.
- The rover will carry not only the instruments of **ISRO** and JAXA but also those of the US space agency NASA and the European Space Agency (ESA).

Source: DD News

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