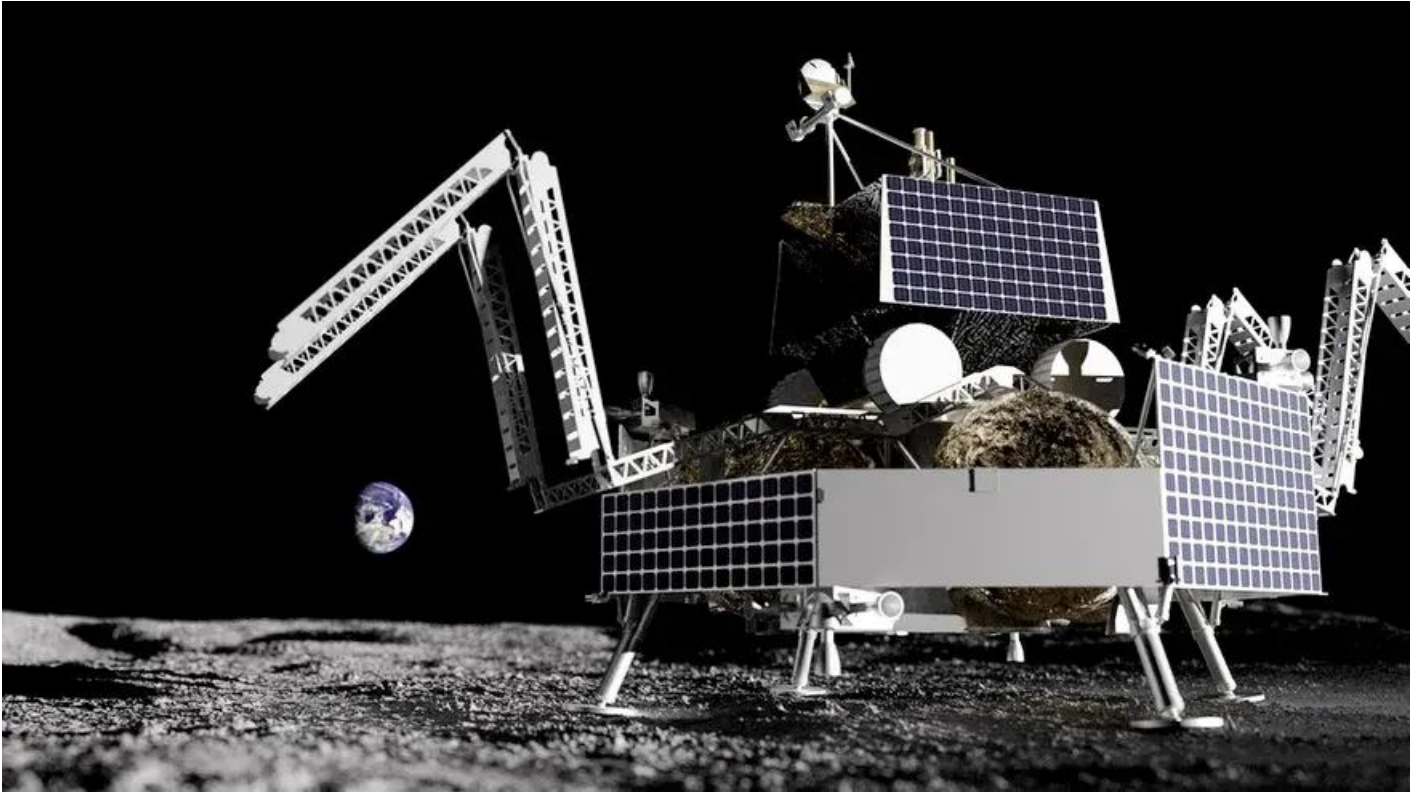


VIPER Rover

January 12, 2024 • vajiramandravi.com



About VIPER Rover

- The Volatiles Investigating Polar Exploration Rover, or VIPER will get a close-up view of the location and concentration of ice and other resources at the Moon's South Pole.
- It is NASA's first mobile robotic mission to the Moon.
- It will directly analyze ice on the surface and subsurface of the Moon at varying depths and temperature conditions within four main soil environments.
- The data VIPER transmits back to Earth will be used to create resource maps, helping scientists determine the location and concentration of ice on the Moon and the forms it's in, such as ice crystals or molecules chemically bound to other materials.
- It navigates across the rugged terrain of the lunar South Pole and gathers valuable data that will help us better understand the history of the Moon and the environment where NASA is planning to send Artemis astronauts.
- Mission duration: 100 Earth days, covering 3 cycles of lunar day and night.
- It will land at the South Pole of the Moon in late 2024.

Q1) What is Artemis II Mission:

It will be the first mission to carry humans to the moon's vicinity since 1972. It is the second scheduled flight of the Artemis program and the first crewed Artemis mission. During Artemis II, four astronauts will fly around the moon before returning to Earth. It will use the huge Space Launch System (SLS) mega-rocket and Orion spacecraft to launch the crew on the lunar flyby mission.

Source: [Fly your name to the Moon aboard NASA's first robotic lunar rover](#)

Source: <https://vajiramandravi.com/current-affairs/viper-rover/>

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