

India's spacecraft is preparing to land on the moon in the country's second attempt in 4 years

August 23 2023, by Ashok Sharma



Children with faces painted stand around a replica of the moon at their school premises in Chennai, India, as they cheer for the successful landing of India's moon craft Chandrayaan-3 on the moon surface, Tuesday, Aug.22, 2023. India's previous attempt to land a robotic spacecraft near the moon's little-explored south pole ended in failure in 2019. Credit: AP Photo/ R.Parthibhan

India was counting down to landing a spacecraft near the moon's south pole Wednesday—an uncharted territory that scientists believe could hold important reserves of frozen water and precious elements.

A lander with a rover inside was orbiting before attempting to touch down on the lunar surface, creating an agonizing wait for India's space scientists in the southern city of Bengaluru. India is making its second attempt in four years to join the United States, the Soviet Union and China in achieving the landmark.

India unexpectedly got into a race with Russia, which had planned to land its Luna-25 spacecraft in the same lunar region on Monday. But Luna-25 crashed into the moon after it spun into an uncontrolled orbit. It would have been the first successful Russian lunar landing after a gap of 47 years. Russia's head of the state-controlled space corporation Roscosmos attributed the failure to the lack of expertise due to the long break in lunar research that followed the last Soviet mission to the moon in 1976.

The highly anticipated Indian moon landing will be watched as people crowd around televisions in offices, shops, restaurants and homes. Thousands prayed Tuesday for the success of the mission with oil lamps on the river banks, temples and religious places, including the holy city of Varanasi in northern India.



An aircraft prepares to land as children cheering for the successful landing of India's moon craft Chandrayaan-3, on the moon surface, wave Indian flags at a school near the airport in Mumbai, India, Tuesday, Aug.22, 2023. India's previous attempt to land a robotic spacecraft near the moon's little-explored south pole ended in failure in 2019. Credit: AP Photo/ Rajanish Kakade

India's Chandrayaan-3—"moon craft" in Sanskrit—[took off from a launchpad in Sriharikota](#) in southern India on July 14, heading for the far side of the moon.

The mission follows a failed effort nearly four years ago to land a rover on the lunar surface to conduct scientific experiments.

"India's pursuit of space exploration reaches a remarkable milestone with

the impending Chandrayaan-3 Mission, poised to achieve a soft landing on the lunar surface. This achievement marks a significant step forward for Indian Science, Engineering, Technology, and Industry, symbolizing our nation's progress in space exploration," said the Indian Space Research Organization in a statement.

A successful Chandrayaan-3 landing would be monumental in fueling curiosity and sparking a passion for exploration among youth, the organization said. "It generates a profound sense of pride and unity as we collectively celebrate the prowess of Indian science and technology. It will contribute to fostering an environment of scientific inquiry and innovation."



A man cheering for the successful landing of India's moon craft Chandrayaan-3, on the moon surface, poses with the Indian flag in Ahmedabad, India, Tuesday,

Aug. 22, 2023. A successful landing would make India the fourth country, after the United States, the Soviet Union, and China, to achieve the feat. Credit: AP Photo/Ajit Solanki

The six-wheeled lander and rover module of Chandrayaan-3 is configured with payloads that would provide data to the scientific community on the properties of lunar soil and rocks, including chemical and elemental compositions.

India's previous attempt to land a robotic spacecraft near the moon's little-explored south pole ended in failure in 2019. It entered the lunar orbit but lost touch with its lander, which crashed while making its final descent to deploy a rover to search for signs of water. According to a failure analysis report submitted to the ISRO, the crash was caused by a software glitch.

The \$140-million mission in 2019 was intended to study permanently shadowed moon craters that are thought to contain water deposits and were confirmed by India's Chandrayaan-1 orbiter mission in 2008.

ISRO says it has perfected the art of reaching the moon, "but it is the landing that the agency is working on."



Children wave Indian flags at their school premises in Mumbai, India as they cheer for the successful landing of India's moon craft Chandrayaan-3, on the moon surface, Tuesday, Aug.22, 2023. India's previous attempt to land a robotic spacecraft near the moon's little-explored south pole ended in failure in 2019. Credit: AP Photo/ Rajanish Kakade

Numerous countries and private companies are in a race to successfully land a spacecraft on the lunar surface. In April, a Japanese company's spacecraft [apparently crashed](#) while attempting to land on the moon. An Israeli nonprofit tried to achieve a similar feat in 2019, but its spacecraft was destroyed on impact.

With nuclear-armed India emerging as the world's fifth-largest economy, Prime Minister Narendra Modi's nationalist government is eager to show

off the country's prowess in security and technology.

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