

Indian Mars mission on track, makes first engine burns

November 8 2013



This photo, released by the Indian Space Research Organisation (ISRO) on November 6, 2013, shows the PSLV-C25 rocket carrying the Mars Orbiter Spacecraft blasting off from the launch pad at Sriharikota, on November 5, 2013

India's Mars spacecraft has completed the first of a series of engine firings designed to free it from Earth's gravitational pull and propel it towards the Red Planet, scientists said Friday.

The first "orbit-raising manoeuvre", which involves the firing of a liquid

fuel thruster, was performed Thursday followed by the second firing on Friday, the Indian Space Research Organisation (ISRO) said.

"The second orbit raising [manoeuvre](#) of Mars Orbiter Spacecraft, starting at 02:18:51 hours (IST) on November 8, with a burn time of 570.6 seconds has been successfully completed," the Bangalore-headquartered ISRO said in a statement.

India began the quest to become the first Asian country to reach Mars on Tuesday with the successful launch from its southern space station of a 1.35 tonne unmanned probe, which is strapped to a rocket.

As it lacks the power to fly directly to Mars, the probe will orbit Earth for nearly a month and the thruster firings are designed to build up the necessary velocity to break free from our planet's [gravitational pull](#).

Only once all six of the engine firing manoeuvres have been successfully completed will it begin the second stage of its nine-month journey to Mars.

The main aim of the mission is to detect methane in the Martian atmosphere, which could provide evidence of some sort of life form on the fourth planet from the sun.



Visitors to the Nehru Planetarium watch the live telecast of the launch of India's Mars Orbiter Mission, in New Delhi, on November 5, 2013

India has never before attempted inter-planetary travel, and more than half of all missions to Mars have ended in failure, including China's in 2011 and Japan's in 2003.

The cost of the project, at 4.5 billion rupees (\$73 million), is less than a sixth of the \$455 million earmarked for a Mars probe by NASA which will launch later this month.

ISRO chairman K. Radhakrishnan has called the mission a "turning point" for India's space ambitions and one which would go on to prove the country's capabilities in rocket technology.

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