

Targets Set by ISRO: Space station by 2035, Indian on Moon by 2040

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Why in News?

- Building on the success of the Indian space initiatives, including the recent Chandrayaan-3 and Aditya L1 Missions, the Indian PM announced two new targets for space agency ISRO.
- The two new targets are setting up an Indian space station by 2035 and taking the first Indian to Moon by 2040.

Timeline of ISRO's Milestones



- **Chandrayaan-3 Mission:** It was successfully launched from the SDSC SHAR, India, on 14 July 2023 on a mission to demonstrate new technologies and to achieve India's first soft landing on the moon.
- **Aditya L1 Mission:** It is India's first space-based observatory to study the Sun. It was successfully launched from Satish Dhawan Space Centre today i.e., on 2 September, 2023.

Future Targets Set by ISRO

- **Gaganyaan Mission/ India's human space flight programme:** A high-level meeting was chaired by the Indian PM to assess the progress of Gaganyaan Mission, under which the first test vehicle is slated to fly on October 21.
 - Many technologies such as the human-rated launch vehicle, crew escape system, space suit, and the system to maintain the environment inside the crew module are being developed for the first time for the Gaganyaan mission.
- **Bharatiya Antariksha Station (Indian Space Station):** The PM directed that India should now aim for new and ambitious goals, including setting up Indian Space Station by 2035.
 - The first indication of a sustained human programme and an eventual space station came in 2019 from the then ISRO chief K Sivan.

- He said the Indian space station is likely to be much smaller, built by combining a couple of modules similar to the current crew module, weighing only 20 tonnes (ISS – 450 tonnes and Chinese Tiangong Space Station – 100 tonnes).
 - Sending first Indian to the Moon by 2040: The Department of Space has been tasked with developing a roadmap for Moon exploration, including a series of Chandrayaan missions. The next Chandrayaan mission is likely to bring back Moon samples.
 - Preparations for a Venus mission: The current ISRO chief S Somanath recently stated that it has already been configured.
 - While he did not provide details of the scientific experiments on the mission, a 2019 proposal had said that there would be 12 payloads, including a thermal camera, mass spectrometer and a cloud-monitoring camera.
 - Other targets: In addition, ISRO will also work on a next generation launch vehicle, a new launch pad, and human-centric laboratories and technologies.
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Q1) What are the benefits of space exploration in India?

According to the ISRO, space research has numerous benefits, such as telecommunications, weather forecasting, GPS, and detecting water bodies and minerals. Additionally, even obscure research by ISRO can lead to useful products or processes.

Q2) What does a space station do?

A space station is a spacecraft capable of supporting a human crew in orbit for an extended period of time and is therefore a type of space habitat. An orbital station or an orbital space station is an artificial satellite.

Source: [PM Modi spells out ISRO goals: Space station by 2035, Indian on Moon by 2040](#)

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

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