SPACE RESEARCH

INDIAN SPACE RESEARCH ORGANISATION (ISRO)

"I am confident that when it comes to India's space programme, the best is yet to come." - PM Narendra Modi

ISRO AND ITS MAIN LAUNCH VEHICLES

The Indian Space Research Organisation (ISRO) is the space agency of the Government of India and has its headquarters in the city of Bengaluru. Its vision is to "harness space technology for national development while pursuing space science research & planetary exploration."

ISRO is world-renowned for its Launch Vehicles, holding the record for the largest number of satellites launched with a single rocket -104.

ISRO’s Launch vehicles the past included the Satellite Launch Vehicle (SLV) which was last used in 1983 and the Augmented Satellite Launch Vehicle (ASLV) which was last used in 1994. Its current launch vehicles include the Polar Satellite Launch Vehicle (PSLV), the Geosynchronous Satellite Launch Vehicle (GSLV) and the GSLV Mk III.

ISRO'S MAJOR ACHIEVEMENTS

Despite an extremely limited budget when compared to major space agencies around the world, ISRO has achieved impressive things.

Apart from the numerous satellites launched by India over the decades, India

successfully sent its first probe to the Moon known as Chandrayaan-1 in October 2008 which helped in finding the presence of water in the Moon and launched its second Moon mission, Chandrayaan-2 in 2019.

One of ISRO's greatest achievements is when ISRO launched its Mars Orbiter Mission on November 5, 2013 (informally called "Mangalyaan") which successfully entered into the orbit around Mars on 24 September 2014. India is the first in Asia and fourth in the world to perform a successful Mars mission. It is also the only one to do so on the first attempt and at a record low cost of $74 million.

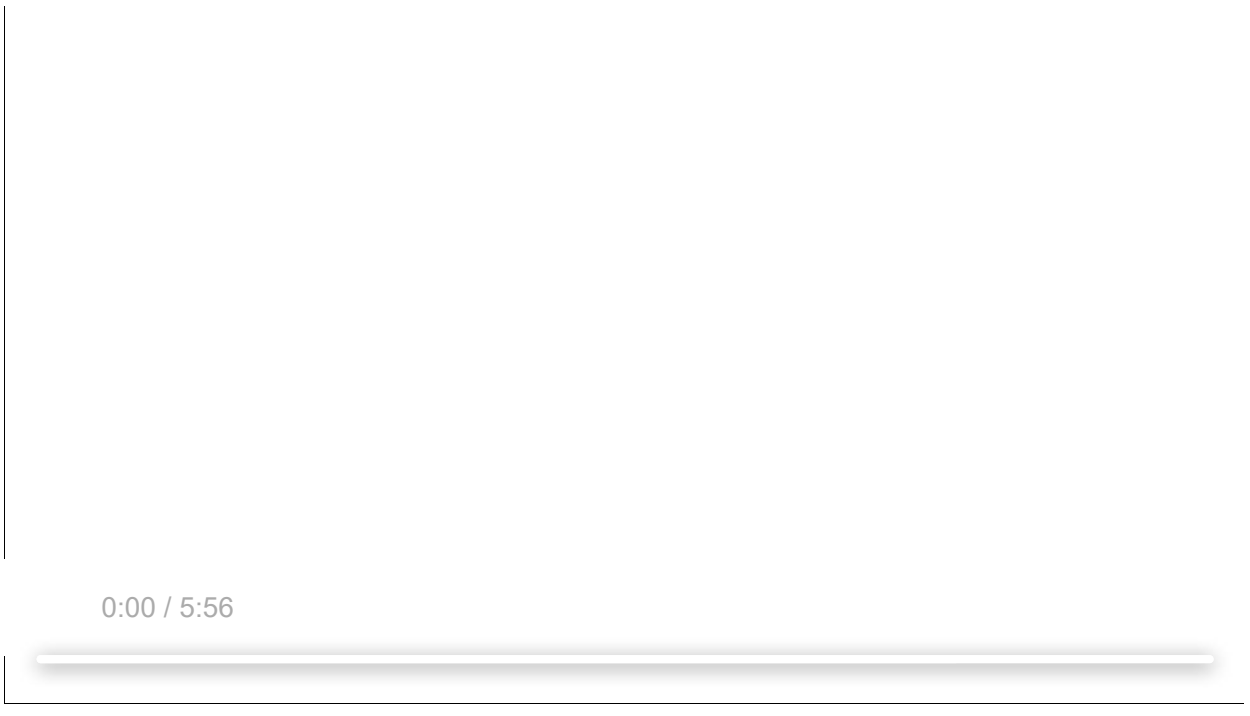
FUTURE PROJECTS

ISRO has a large number of projects planned out over the next few years.

For example, ISRO plans to carry out a mission to the Sun by the year 2020. The probe is named Aditya-L1 and will have a mass of about 400 kg (880 lb). It is the first Indian space-based solar coronagraph to study the corona in visible and near-IR bands.

ISRO is also assessing an orbiter mission to Venus called Shukrayaan-1, that could launch as early as 2023 to study its atmosphere. Chandrayaan-3 is aimed for launch in 2021. A second Mars Orbiter Mission has been announced, which will probably be launched by the end of this decade.

Finally, ISRO plans to achieve Human Spaceflight by 2022 via its Gaganyaan mission. According to the Chairman of ISRO, an Indian Space Station will be deployed in 5–7 years after completion of Gaganyaan project. ISRO's future looks incredibly promising.



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