

India's first privately developed launch vehicle

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In news—India's first privately developed launch vehicle—Vikram is set to make its maiden flight from Indian Space Research Organisation's (ISRO) launchpad at Sriharikota between November 12 and 16.

About the vehicle-

- It was developed by Hyderabad-based space startup Skyroot Aerospace.
- **The maiden mission of Skyroot Aerospace, named 'Prarambh' (the beginning), will carry three customer payloads.**
- **With this mission, Skyroot Aerospace is set to become the first private space company in India to launch a rocket into space,** heralding a new era for the space sector which was opened up in 2020 to facilitate private sector participation.
- **The Vikram-S rocket is a single-stage sub-orbital launch vehicle** which would carry three customer payloads and help test and validate the majority of the technologies in the Vikram series of space launch vehicles.
- Skyroot was the first startup to sign a memorandum of understanding with ISRO for launching its rockets.
- Its launch vehicles have been crafted specially for the small satellite market, and are named 'Vikram' as a tribute to Vikram Sarabhai, founder of the Indian space programme.
- They come in three forms, Vikram I, II, and III.
- Skyroot claims a Vikram rocket can be assembled and launched within 24 hours from any launch site, and has the "lowest cost in the payload segment".
- Based in Hyderabad, Skyroot builds state-of-the-art

space launch vehicles for launching commercial satellites to space.

- It aims to disrupt entry barriers to cost-efficient satellite launch services and space-flight by advancing its mission to make spaceflights affordable, reliable and regular for all.
- Although Skyroot will be the first private company to launch its rocket, others are not far behind.
- Take for example Agnikul Cosmos, whose semi-cryogenic Agnilet engine was test-fired recently at ISRO's vertical testing facility at Thumba Equatorial Rocket Launching Station (TERLS), Thiruvananthapuram.
- ISRO's Small Satellite Launch Vehicles (SSLV) are also likely to be manufactured and operated by private players soon.