Skyroot, Brazil's Concert Technologies MoU on 100-kg launcher

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News

Hyderabad-based private space company Skyroot Aerospace has signed a two-year Memorandum of Understanding (MoU) with Concert Technologies, a member of the consortium of Brazil's Micro Launcher Program (ANI, 12 Nov 2026). The aim is to explore jointly developing a launch vehicle able to carry at least 100 kg to Low Earth Orbit (LEO); it is not yet a firm development contract. The vehicle would sit between Brazil's micro-launchers (up to 40 kg) and Skyroot's larger Vikram family, and equatorial launch opportunities will also be explored. The MoU was signed in October 2026 at the International Astronautical Congress (IAC) in Antalya, Türkiye, by Concert Space CEO Rafael Mordente. Brazilian Space Agency president Marco Antonio Chamon and Brazilian astronaut-senator Marcos Pontes were present. Separate agreements will be needed for investment, equipment supply and commercialisation. Founded in 2018, Skyroot's Vikram-S became India's first private rocket to reach space in 2022, and its Vikram-1, India's first private orbital rocket, reached orbit on its maiden flight on 18 July 2026 (Reuters).

Key facts for the exam

Point	Details
Agreement	Two-year MoU – exploratory
Companies	Skyroot Aerospace (Hyderabad) – Concert Technologies (Brazil)
Goal	Launcher for at least 100 kg to LEO

Point	Details
Signed at	IAC 2026, Antalya, Türkiye – Oct 2026
Skyroot founders	Pawan Kumar Chandana, Naga Bharath Daka (ex-ISRO), 2018
Vikram-S	18 Nov 2022, Sriharikota – Mission 'Prarambh'; about 89.5 km
Vikram-1	First private orbital rocket – 18 Jul 2026, Sriharikota ('Aagaman' mission)
Engine names	'Raman' (C.V. Raman), 'Kalam' stages (A.P.J. Abdul Kalam), 'Dhawan' (Satish Dhawan)

Background

- Under the 2020 space-sector reforms, the Indian National Space Promotion and Authorisation Centre (IN-SPACe) was set up as a single-window body to promote and authorise private space activities; it is headquartered in Ahmedabad. ISRO's commercial arm is NewSpace India Limited (NSIL).
- India–Brazil space cooperation spans over two decades. On 28 February 2021 ISRO's PSLV-C51 launched 'Amazonia-1', Brazil's first indigenous Earth-observation satellite, from Sriharikota; it was NSIL's first dedicated commercial launch. Both countries are BRICS members.
- Earth's rotational speed is greatest at the equator, so launching eastward from near it gives a rocket extra velocity. Brazil's Alcântara launch centre (Maranhão state) lies very close to the equator. Low Earth Orbit (LEO) generally extends up to about 2,000 km altitude; geostationary orbit (GEO) is about 35,786 km.
- Skyroot's Vikram rockets are named after Dr Vikram Sarabhai, father of India's space programme. On 27 November 2025 Prime Minister Narendra Modi inaugurated Skyroot's 'Infinity' campus in Hyderabad.

Tamil Nadu link: Skyroot's Vikram-1 liquid-fuelled 'Raman' engine (on its orbital adjustment module) is named after Nobel laureate C.V. Raman, born in Tiruchirappalli, and its solid stages 'Kalam' after Dr A.P.J. Abdul Kalam, born in Rameswaram. ISRO's second spaceport, for small launch vehicles (SSLV), is being built at Kulasekarapattinam in Thoothukudi district; IIT Madras-born 'Agnikul Cosmos' is another private rocket firm.

Frequently asked questions

What is this news about?

Hyderabad-based private space company Skyroot Aerospace has signed a two-year Memorandum of Understanding (MoU) with Concert Technologies, a member of the consortium of Brazil's Micro Launcher Program (ANI, 12 Nov 2026).

What are the key facts to remember for the exam?

Agreement: Two-year MoU – exploratory; Companies: Skyroot Aerospace (Hyderabad) – Concert Technologies (Brazil); Goal: Launcher for at least 100 kg to LEO; Signed at: IAC 2026, Antalya, Türkiye – Oct 2026.

What is the background to this news?

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headquartered in Ahmedabad.

Practice questions (with answers)

1. Which Brazilian rocket launch site lies very close to the equator?

A) Alcântara

B) Kourou

C) Baikonur

D) Tanegashima

Answer: A – Explanation: Alcântara, Maranhão. Kourou is in French Guiana (Europe's), Baikonur in Kazakhstan (Russia's), Tanegashima in Japan.

2. Which ISRO rocket launched 'Amazonia-1', Brazil's first indigenous Earth-observation satellite, in 2021?

A) GSLV Mk III

B) SSLV-D1

C) GSLV-F10

D) PSLV-C51

Answer: D – Explanation: PSLV-C51 – 28 Feb 2021 from Sriharikota; the first dedicated commercial mission of NSIL, ISRO's commercial arm.

3. Where is IN-SPACe, the single-window body that authorises private space activities, headquartered?

A) Bengaluru

B) Hyderabad

C) Sriharikota

D) Ahmedabad

Answer: D – Explanation: Ahmedabad – set up under the Department of Space in the 2020 reforms. ISRO's headquarters is in Bengaluru.

4. Low Earth Orbit (LEO), targeted by the Skyroot–Concert launcher, generally extends up to what altitude?

A) About 35,786 km

B) About 20,200 km

C) About 2,000 km

D) About 100 km

Answer: C – Explanation: About 2,000 km. 35,786 km is geostationary orbit; 20,200 km is GPS (MEO); 100 km is the Kármán line.

5. C.V. Raman, after whom Skyroot named its 'Raman' upper-stage engine, was born in which present Tamil Nadu district?

A) Thanjavur

B) Tiruchirappalli

C) Madurai

D) Tirunelveli

Answer: B – Explanation: Thiruvanaikoil, Tiruchirappalli (7 Nov 1888). The 'Raman Effect' won the 1930 Physics Nobel; 28 Feb is National Science Day.

Sources: ANI – aninews.in (12 Nov 2026, 'India, Brazil join hands to develop satellite launch vehicle'); News On AIR – newsonair.gov.in (18 Jul 2026, Vikram-1 'Mission Aagaman'); ISRO – isro.gov.in (PSLV-C51/Amazonia-1); IN-SPACe – inspace.gov.in (Skyroot authorisations); Reuters (Vikram-1, 18 Jul 2026). © Shanmugam IAS Academy.