

Leap-1 Mission

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Leap-1 Mission Latest News

A budding space tech startup Dhruva Space from India, is set to launch its first commercial satellite mission called LEAP-1.

About Leap-1 Mission

- It is **Dhruva Space's first commercial satellite mission**, which is carrying **payloads for AI and Earth observation**.
- It utilises Dhruva Space's indigenously developed **P-30 satellite platform** which was successfully space-qualified during the LEAP-TD mission on ISRO's PSLV-C58 in January 2024.
- It is developed by Dhruva Space and Australia-based Akula Tech and Esper Satellites.
- The mission carries **two distinct payloads**:
 - **Nexus-01**: It features an advanced artificial intelligence (AI) module.
 - AI module promises unprecedented **on-orbit intelligence** with onboard data processing and AI/ML model re-training capabilities for rapid, near-real-time insights.

- AI flexibly supports applications such as **fire detection and spectral analysis**, continuously improving via live sensor data retraining.
 - **Esper Satellites' OTR-2 mission**: It is equipped with a cutting-edge **hyperspectral imager**.
 - **This hyperspectral imager** delivers spectrally rich **Earth observation data** through their **EarthTones API**, setting a new standard in remote sensing technology.
- **Significance**: This payload fusion enhances capabilities across applications including defense, disaster response, agriculture, mining, and environmental monitoring.

Source: [India today](#)

Source: <https://vajiramandravi.com/current-affairs/leap-1-mission/>

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