

WORLD

# Singapore's first satellite to orbit closest to Earth

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*Elite has been developed by Nanyang Technological University. (Photo: The Straits Times)*

**Singapore (VNA)** – Singapore's first satellite to fly closest to the Earth, carrying novel technologies and capturing high-quality pictures, has been developed by Nanyang Technological University (NTU), and will be ready for take-off in mid-2025.

Most satellites in space are found at least 500-800km from the Earth. The new 1.2-metre-tall satellite, called Extremely Low Earth Imaging Technology Explorer (Elite), will soar just 250km above the globe.

This altitude is a relatively unexplored part of space with a harsher environment for machines since they are surrounded by highly reactive gases and atmospheric friction. Only a handful of such satellites are in very low orbit currently.

The size of a small fridge, Elite is the NTU's 14th satellite and the largest and most complex to date.

Executive director of the Satellite Research Centre Lim Wee Seng said as Elite will be half the distance from the Earth compared with a conventional satellite, it can capture better quality images up to 50 centimetres in resolution.

Besides, telecommunication could also improve since a satellite closer to Earth will reduce network delays, he said.

According to Lim, with fewer spacecraft in a 250km orbit, Elite will be able to manoeuvre through space without the risk of colliding with another vehicle or disused satellite.

Singapore is not a space-faring nation, but its niche lies in building high-tech space components and small satellites. The country is home to more than 60 local and international space-tech firms, with a combined total of over 2,000 professionals and researchers.

Since 2011, Singapore has launched more than 30 satellites./.