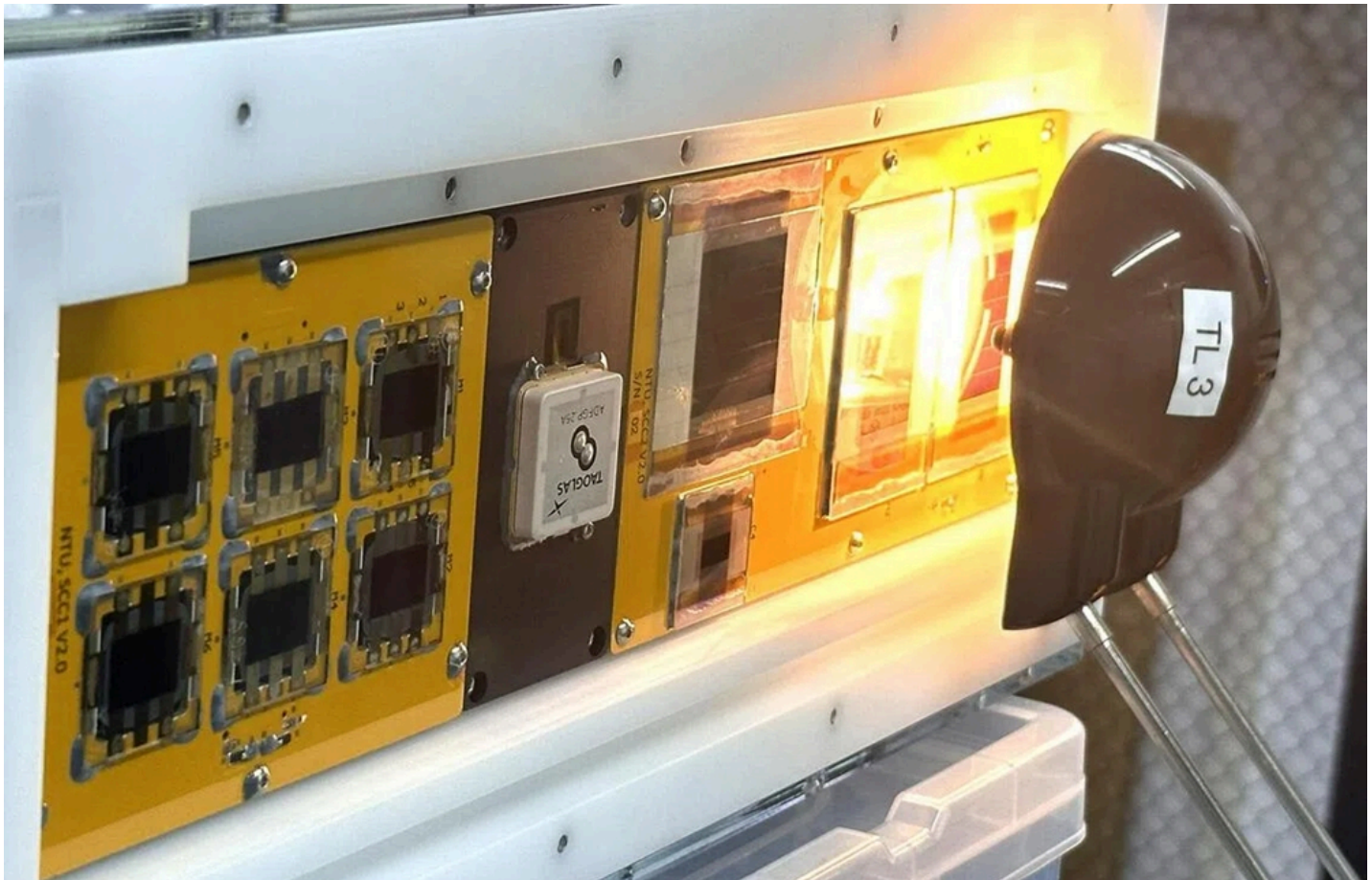


Singapore's first AI nanosatellite has been launched into orbit.

Saturday, 11:00 AM, October 3, 2026

VOV.VN - On October 2nd, Singapore launched the **Crimson-1** satellite into orbit. This is Singapore's first nanosatellite integrating artificial intelligence (AI) technology, capable of analyzing and processing images to detect incidents such as forest fires and oil spills, and also testing the efficiency of new generation solar cells in space.

The **Crimson-1** satellite, developed by Nanyang Technological University (NTU), measures approximately 30 x 10 x 10 cm and weighs about 5 kg. It was launched using a SpaceX Falcon 9 rocket from [Vandenberg Space Force Base](#) in California, USA.



Crimson-1 satellite. Source: Nanyang Technological University (NTU)

A notable feature of the satellite is its ability to apply AI to process data directly in orbit. This technology allows the satellite to automatically analyze and filter out less valuable data, transmitting only essential information back to Earth. According to NTU, this on-site data processing significantly reduces the workload for scientists. Previously, experts had to manually examine and filter each image collected by the satellite to determine its usability.

Crimson-1 is expected to undertake a one-year mission. During this time, researchers will evaluate the operational capabilities of the AI-integrated computing system, particularly its ability to control temperature and power consumption when processing large volumes of data. Besides AI technology, the satellite will also be used to test a new generation of solar cells made from perovskite material. This type of cell has the advantages of being thinner, lighter, and potentially less expensive to manufacture than the gallium arsenide cells currently commonly used in [space](#) .

Crimson-1 is NTU's 14th research satellite. Over the past two decades, more than 30 Singaporean satellites have been launched into space. The Crimson-1 development project was one of the first to receive support from the Singapore National Space Agency under the SGD 210 million (approximately USD 165 million) Space Technology Development Programme. The programme aims to enhance research and development capabilities and promote Singapore's space industry.