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Three new satellites launched to test 3D-printed materials and track atmospheric data



Three new satellites built by NTU have successfully blasted off into orbit, taking NTU's total satellite launch count to 13. The satellites - **SCOOB-II**, **VELOX-AM** and **ARCADE** - serve as demonstrations of NTU's leading capabilities in satellite engineering and undergraduate space engineer training. They will be used to conduct orbital experiments such as testing 3D-printed parts in space, measuring atmospheric data, and evaluating new space materials.

SCOOB-II is the second satellite built under **NTU's Student Satellite Series** which aims to provide real-world satellite learning opportunities for engineering undergraduates. The 4.1kg shoebox-sized SCOOB-II satellite carries a payload which demonstrates advanced electronics test operations in space.

The VELOX-AM (Additive Manufacturing) satellite is a collaborative endeavour with Singapore's **A*STAR** aimed at testing, for the first time how 3D-printed parts can be used effectively to produce complex satellite components.

The ARCADE (Atmospheric Coupling and Dynamics Explorer) satellite aims to measure data for atmospheric coupling studies. The satellite carries four instruments: two imagers, a plasma prob, and an atomic oxygen instrument. It also carries newly developed flexible perovskite solar cells, which will be used in experiments to test their performance in Low Earth Orbit for potential applications in curved, rollable solar panels.

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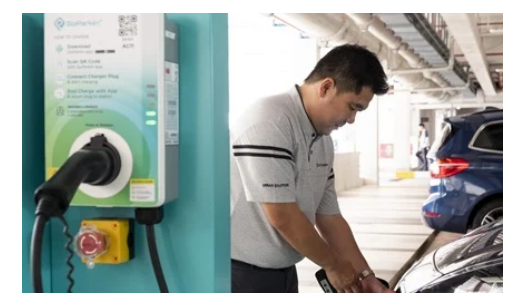
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