

AGENCY

LEDSAT students travel to Brno, readying their satellite for launch

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15 July 2021 marks a major milestone in the story of student satellite LEDSAT. Four students from Sapienza University of Rome, Italy, have travelled to Brno in Czech Republic, and are visiting the integration facility of SAB LS. The mission: install their miniature satellite into its CubeSat dispenser in preparation for launch just a few weeks from now!

LEDSAT is a CubeSat designed entirely by students as part of ESA Academy and ESA Education Office's Fly Your Satellite! programme, with support from the Italian Space Agency (ASI) within the IKUNS Programme along with Michigan University, which aided in conceiving and studying the CubeSat. Its exterior features tiny LED lights that will flash when in Earth's shadow, allowing ground stations to ascertain how the satellite is orientated in space. If successful, this technology could be rolled out to many more satellites, providing a valuable method of avoiding collisions in orbit.

— LEDSAT logo

The LEDSAT team, with support from ESA experts, have had a long journey to reach this point. Most recently they enjoyed great success with their Flight Acceptance Review. This was a major hurdle to overcome but the students and their satellite met all required criteria and so received their "ticket to orbit", propelling them to this current stage.

The main objective of the students now visiting the facility in Brno is to install LEDSAT into its dispenser. This is a standard device designed to deploy CubeSats in orbit. Once a CubeSat is installed, the dispenser can be "piggybacked" onto a rocket that will launch it into space. During take-off, the dispenser acts as a high-tech shipping container, protecting its small and precious cargo during the intense conditions experienced during launch and the subsequent journey into orbit.

This is the students' last chance to get hands-on with LEDSAT before its launch into space, so they are taking the opportunity to conduct a series of last-minute tests. In particular, the students are checking that LEDSAT's battery is fully recharged. They are also ensuring the satellite is perfectly clean, to avoid contaminating the other hardware that will be sharing its ride into space.

— The CubeSats deployer with LEDSAT integrated inside! Ready to be shipped to the European Space Port in French Guiana.

"It's amazing to see all these years of work turning into a space-ready satellite and how in just few weeks we'll start to see the results from orbit. Godspeed LEDSAT!" - Andrea Gianfermo

Upon completion of the students' work in Brno, LEDSAT, within its CubeSat dispenser, will be shipped to the European spaceport, the Centre Spatial Guyanais in French Guiana. In late July it will be loaded onto a launcher, along with other CubeSats hitching a lift. The students will not be kept in suspense for long, as take-off is scheduled for later this summer.

Stay tuned for further updates!