AGENCY

New missions selected for the fourth edition of the Fly Your Satellite! programme

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ESA / Education / CubeSats - Fly Your Satellite!

Designing, building, and launching a satellite may seem like the preserve of space industry veterans with decades of experience, but ESA Academy's Fly Your Satellite! programme makes it a reality for university students! Now entering its fourth edition, Fly Your Satellite! has garnered a deserved reputation for giving ambitious students the opportunity of a lifetime. Competition for spaces on the programme is fierce, and recently ESA invited candidate student teams from ESA Member States and Canada to attend a Selection Workshop. Held at ESA ESTEC in the Netherlands from 26 to 28 February 2024, eight teams participated and eventually a lucky four were chosen.

"The ESA FYS! 4 Selection workshop forged unexpected friendships, further fostered curiosity and passion and no matter the outcome, has been a greatly educational experience" one of the student team said. To meet the stringent qualification criteria, the teams were required to prepare mission proposals in advance. These were then presented to an Evaluation Panel who listened carefully, then quizzed the students to probe the plans. In addition, all eight teams enjoyed insightful lectures given by ESA specialists, and an inspirational presentation from current Fly Your Satellite! team EIRSAT-1.

Although the decision was not easy, ultimately four teams were chosen to be part of Fly Your Satellite! Two are traditional CubeSat designs – made up of 10cm cubes packed with technology. The other two are PocketQubes, a new even smaller satellite standard gaining popularity and measuring with each unit (or 'P') just 5cm along each side.

The successful teams are:

ALEASAT - University of British Columbia, Canada

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A one-unit CubeSat being designed and built jointly by the UBC Orbit and SFU SAT student design teams at the University of British Columbia and Simon Fraser University. Its primary mission objective is to provide amateur radio operators with access to targeted satellite imagery captured using an on-board, visible wavelength camera system.

Da Vinci Satellite - Delft University of Technology, Netherlands

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The Da Vinci Satellite is a two-unit CubeSat. It aims to be an educational satellite that will provide a direct connection to space for primary and secondary school children through educational packages that bring satellite data into classrooms in an interactive manner.

PoCat-LEKTRON - Universitat Politècnica de Catalunya, Spain

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This PocketQube project is spearheaded by the NanoSatLab at the Universitat Politècnica de Catalunya. PoCat-LEKTRON is a twin satellite mission for radio frequency interference (RFI) monitoring. PoCat-1 will be looking for RFI in global navigation satellite systems and microwave radiometry bands. PoCat-2 will search for spurious emissions from 5G services, used to measure atmospheric water vapour.

Red Pill - University of Padova, Italy

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A PocketQube developed by the J2050 student team from the University of Padova, Red Pill is hoped to be the first satellite launched into space developed entirely by the university's students. They have identified miniaturisation as an important trend in the space industry, so Red Pill will be testing technology scaled down in size.

The ESA Education Office will be offering the selected teams training weeks in collaboration with the ESA Academy Training Programme in ESEC Galaxia, Belgium. Best of luck to the students as they begin this incredible adventure!

More information about the Fly Your Satellite! programme can be found here.

— Group picture of all the teams participating in the Fly Your Satellite! 4 Selection Workshop in front of ESA's Columbus Module mock-up