
Canadian University Students Set to Fly Their Experiments in Microgravity This Month

July 3, 2023

Ottawa, ON - Four university teams are set to compete this month with their out-of-this-world experiments, as part of the Canadian Reduced Gravity Experiment (CAN-RGX) Design Challenge. CAN-RGX encourages post-secondary students from across Canada to fully design, build, and test a small experiment to be flown in the microgravity environment of parabolic flight, similar to the experiments done at the International Space Station. This year's competition culminates in a long-awaited flight campaign to be held at the National Research Council of Canada's Flight Research Laboratory in Ottawa from July 31 - August 4, 2023.

Over the past year, four student teams have worked hard to design, integrate, and test their scientific experiments. These are:

- CRISiS (Concordia University) aims to engineer a new class of cardio-pulmonary resuscitation (CPR) manikins as a stepping-stone in establishing a "gold standard" CPR for human spaceflight. This manikin would provide real-time feedback of volumetric flow rate in the cardiovascular fluidic system.
- Graviteam (University of Calgary) is investigating passive phase separation and open capillary channels in microgravity. The team hopes to achieve more efficient separations in space by developing more complex channel geometries.
- SpiderSat (University of Alberta) is testing a Kraton G1645 gecko adhesive net to capture debris-like materials. This project is contributing to the development of a cost-effective dry adhesive net to capture space debris in Earth's orbit.
- UBC Rocket (University of British Columbia) is investigating blood clot formation and break down in microgravity. This project is crucial for understanding and developing interventions for thrombosis events in space, thus keeping astronauts healthy during long-duration spaceflight.

CAN-RGX is hosted by the Students for the Exploration and Development of Space (SEDS-Canada) in collaboration with the the National Research Council of Canada and the Canadian Space Agency.

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