

Canadian Stratospheric Balloon Experiment (CAN-SBX)

2020 Design Challenge

Hosted By



Canadian Space Agency
Agence spatiale canadienne

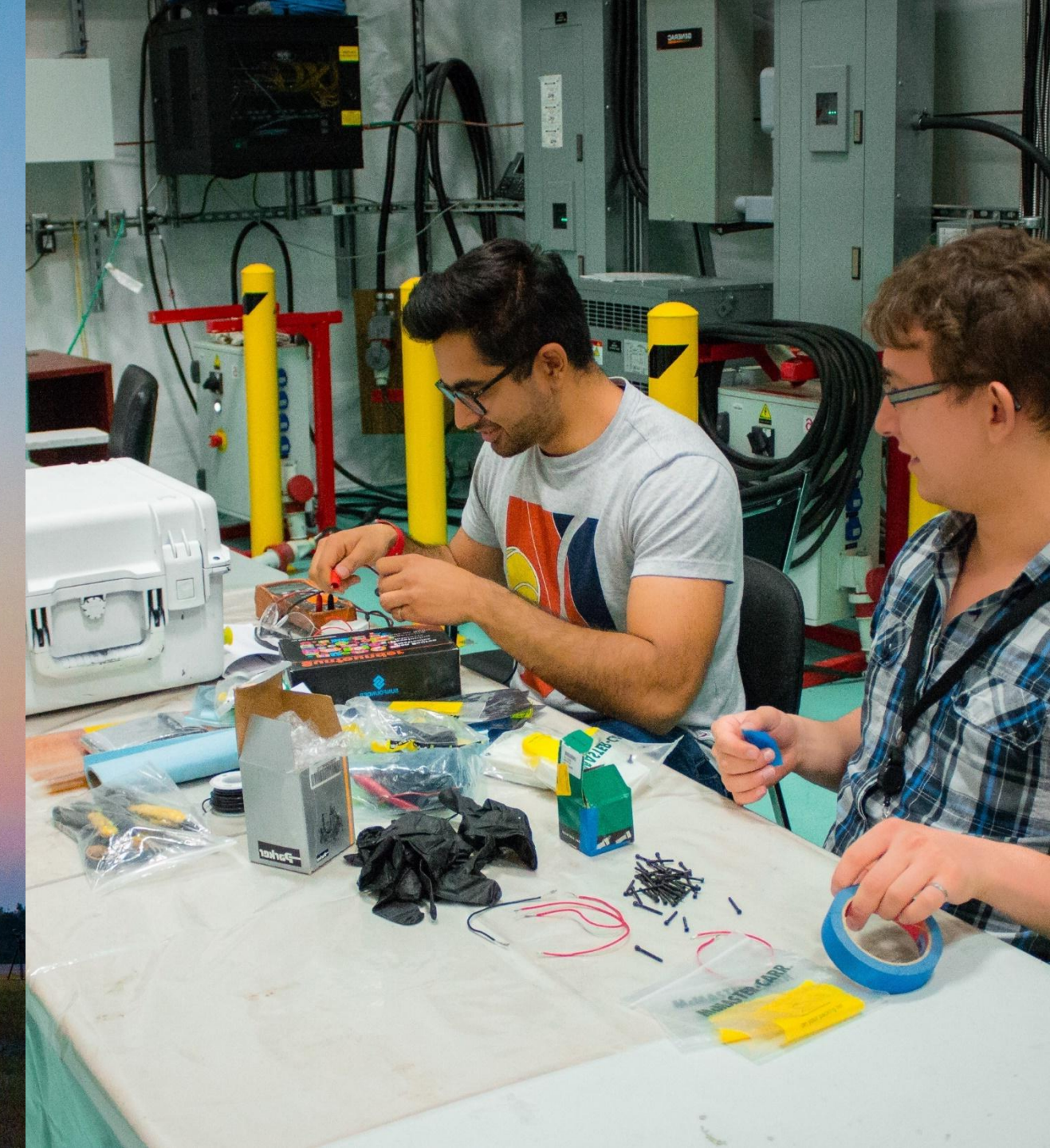
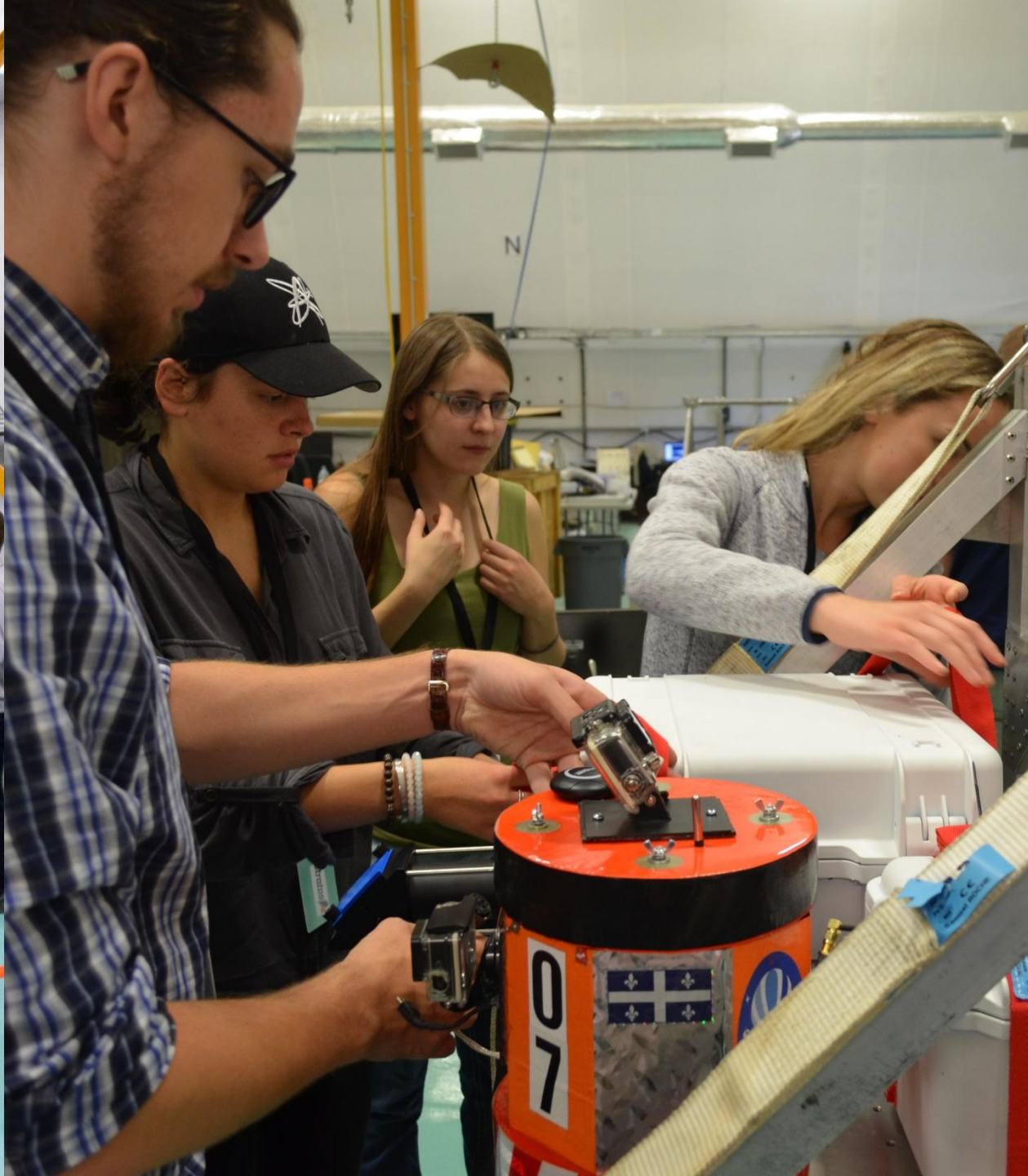




Students for the Exploration and Development of Space (SEDS)

SEDS-Canada is Canada's only **student-run non-profit** that operates at a national level to inspire and **empower students** joining the space industry, and to advocate for the advancement of space exploration in the public sphere. SEDS-Canada was established in 2014 and has since developed multiple initiatives including our annual Ascension conference and CAN-RGX and CAN-SBX design challenges. For more information, please visit us at

<https://seds.ca/>



Canadian Stratospheric Balloon Experiment (CAN-SBX) Design Challenge

The CAN-SBX Design Challenge engages Canadian post-secondary students to **design and launch a scientific experiment on board a Canadian Space Agency high-altitude balloon platform.** 2020 will be the third year in a row of CAN-SBX missions which have allowed students to explore various fields including astrophysics, environmental science, and medicine.

Competition Objectives

Visit

seds.ca/can-sbx/

for more info!

CAN-SBX is an opportunity for students to:

- Perform **meaningful science** & publish their work
- Build connections with professionals in relevant industries
- Gain valuable **project management** experience through a **full engineering design cycle**
- Gain experience in mission operations including **scheduling, launching, tracking, and recovery** of expandable balloons

The project benefits Canada's space sector too by contributing to the Canadian Space Agency's vision and mandate to train highly qualified personnel for future careers in STEM fields and advancing Canadian technology in the space sector.

CAN-SBX Project Management Team



ILIJA HRISTOVSKI

Project Manager

Masters Candidate,
University of British Columbia



JAMES XIE

Asst. Project Manager

Associate Consultant,
Stroud International



KRISTEN COTE

Projects Chair

PhD Candidate,
University of Toronto



Team Feature: WesternU HAB (Western University)

The Western UBT high-altitude experiment seeks to measure the effects of ionizing radiation on organic compounds.

Samples of Vitamins B₁, B₁₂, and C, will be sent to the stratosphere along with several environmental sensors.

Following payload recovery, lab tests will be conducted to measure structural and chemical changes in the samples.





Team Feature: NEUDOSE (McMaster University)

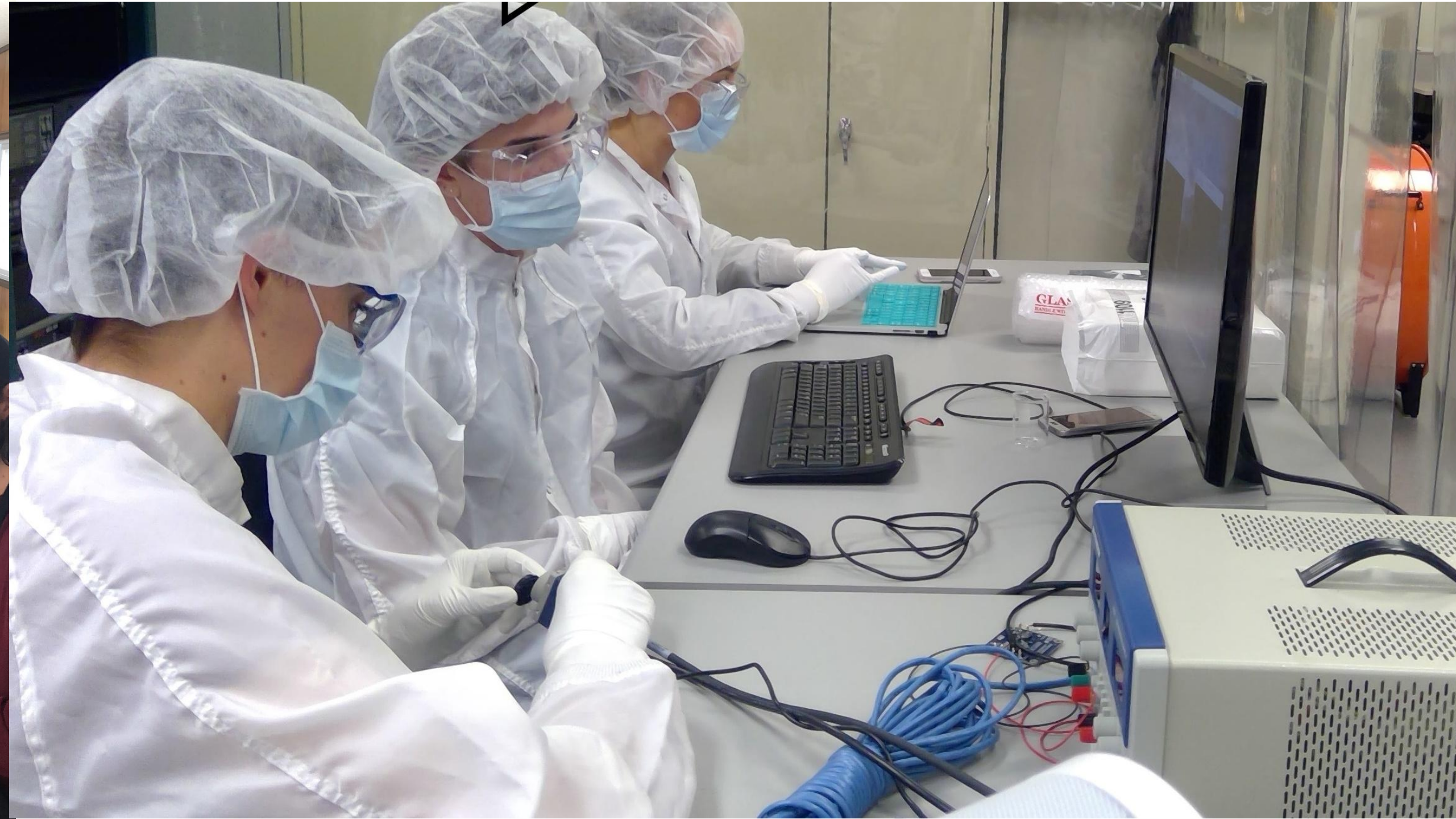
Exposure to radiation in space can severely increase the risk of developing harmful diseases.

The NEUtron DOSimeter Experiment (NEUDOSE) is a CubeSat which seeks to trial a new dosimeter that can distinguish between charged and neutral radiation which interacts with human tissue differently.

Knowing more about each type of radiation can help us better protect humans as we explore the cosmos!

CAN-SBX provides a platform to test the CubeSat bus.

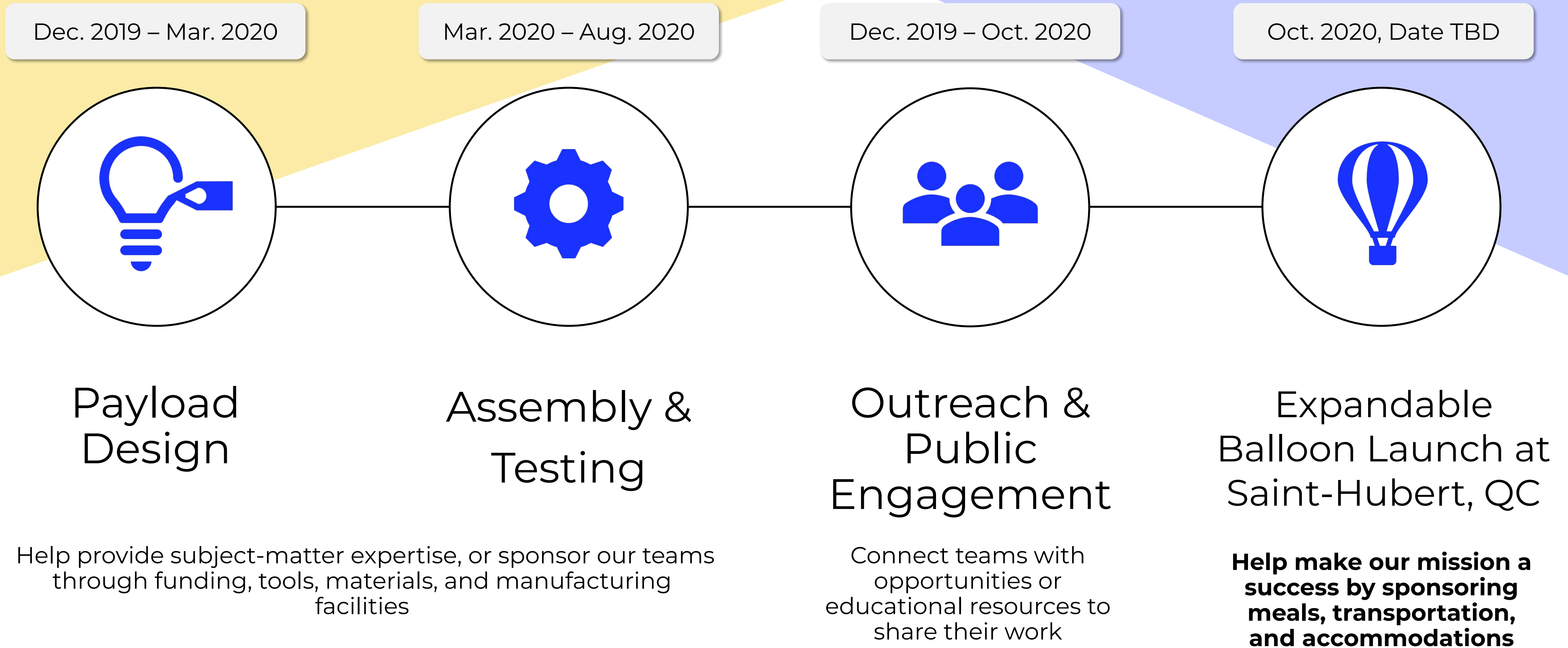




How Does Supporting SEDS-Canada Help You?

SEDS-Canada connects students from across Canada with public, private, and academic institutions in the space industry. Becoming a sponsor allows you to access our network of students across Canada, recruit talent to your company with relevant experience, and join us in investing in basic research and STEM education to support the Canadian space industry.

CAN-SBX Timeline: Opportunities for Support

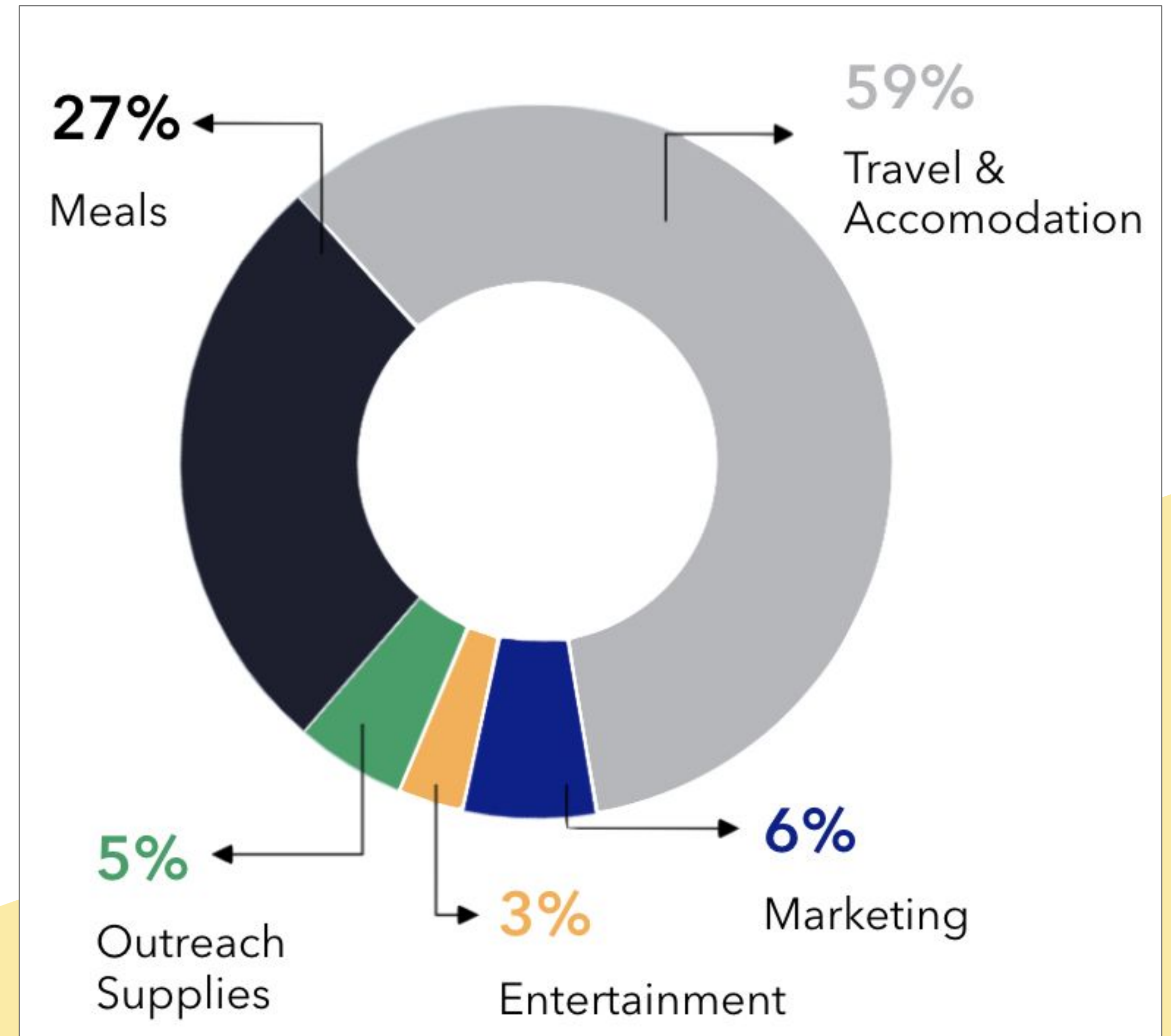


For more info or if you are interested in sponsoring, please contact cansbx@seds.ca

Where Does Your Money Go?

The CAN-SBX budget is **\$8,500**, which includes ~\$5,000 in travel and accommodation expenses and ~\$2,300 in meals.

Of the students who participated in a post-campaign survey, 66% ranked the **COST** of travel, accommodations, and meals as the most prohibitive factor for their project.



Sponsorship Benefits

We appreciate your support in providing students opportunities to explore the space industry,
 For more info or if you are interested in sponsoring, please contact cansbx@seds.ca

	Interstellar \$750+	Lunar \$500+	Low-Earth Orbit \$250+
Logo Placement (Website, Social Media, Promotional Material)	Large Logo	Medium Logo	Small Logo
Ascension 2021 Conference	50% Off Plus 2 Free Tickets	30% Off Plus 1 Free Ticket	20% Off
SEDS Competitor Student Resume Book	✓	✓	
Logo Placement on Stratospheric Payloads (+ Video)	✓		
In-Kind Opportunities			
Be a CAN-SBX Subject Matter Expert	Volunteers able to help judge PDR/CDR or support teams with expert advice will earn the Low-Earth Orbit sponsorship tier		
In-Kind Sponsorship	Discounts to equipment/hardware or meals/travel/accommodations during the mission will earn the greater of Low-Earth Orbit or their in-kind value towards a sponsorship tier		

Join Us!



Please contact cansbx@seds.ca to help support our project,
We look forward to exploring our universe with you!