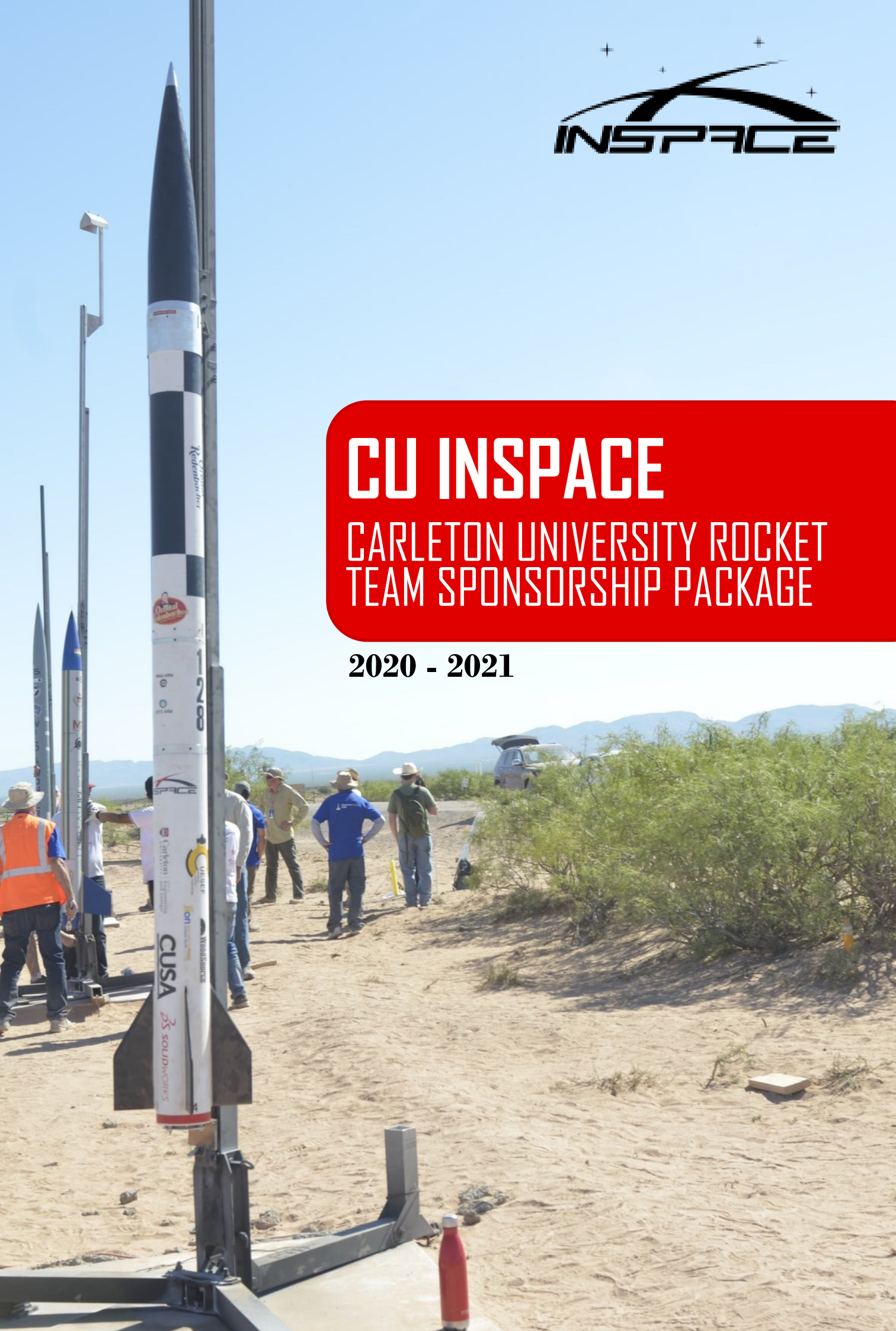




CU INSPACE

CARLETON UNIVERSITY ROCKET
TEAM SPONSORSHIP PACKAGE

2020 - 2021



ABOUT CU INSPACE

The Carleton University Rocket Engineering Team, CU InSpace, is a team of interdisciplinary students who design, build, and launch high-powered rockets to 10,000ft to compete in the annual Spaceport America Cup. This intercollegiate rocketry competition is run by the Experimental Sounding Rocket Association (ESRA), bringing together 100+ teams from around the world. Our goal is to unite students who share a passion for space travel, rocketry, engineering design, and problem solving to represent Canada's capital university, Carleton, internationally. Founded in February 2015, InSpace has met several milestones including three successful liftoffs and two successful recoveries at competition. Having competed thrice in the commercial solid engine category, our team is working toward the goal of developing a hybrid fuel engine. We are pushing to realise innovative features this year including an autonomous payload, custom parachutes, pitot-static tube, body-integrated sensors, and cube-sat standard electronics.



SUBTEAMS

PROPULSION works to develop our first hybrid engine system, culminating over a year of research in fuel grain geometry, combustion dynamics, and nozzle design.

AEROSTRUCTURES designs and manufactures all of our custom aerodynamic and structural components from the fiberglass nosecone down to the carbon fiber fins.

ELECTRONICS engineers the hardware and software responsible for successful engine ignition, live telemetry, parachute deployment, and post-launch tracking.

RECOVERY integrates the CO2 ejection system as well as designs and fabricates our full-scale nylon drogue and main parachutes for a soft landing.

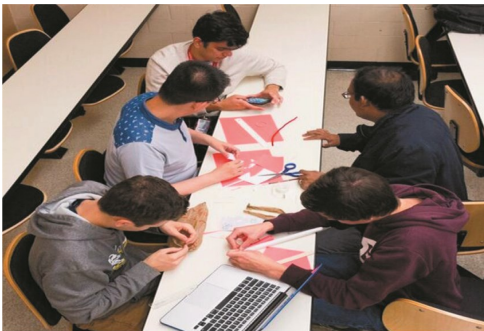
PAYLOAD designs and builds a 3u CubeSat standard payload capable of ejecting from the rocket. This payload will contain avionics necessary to record information about the payloads trajectory as it lands, as well as an experimental SRAD subsystem.

OUTREACH

CU InSpace has established several outreach initiatives within our campus and our community. These projects aim to educate current and prospective students about what our club does, provide new challenges for our members, and promote collaboration and friendly competition with fellow Carleton clubs and societies.

INTRA-TEAM ROCKET COMPETITION

Every semester, CU InSpace holds a rocket competition for its members, exposing them to the engineering competition environment as they are placed in random groups, given constraints, and a short time-line to create a rocket. The team whose rocket last the longest in the air wins!



CMAS - CU INSPACE ROCKET COMPETITION

On a yearly basis, our team and the Carleton Mechanical & Aerospace Society (CMAS) jointly host a small rocket competition. Given the same constraints and rules as the Intra-Team Competition, there is a friendly competition between both groups. The competition begins with a short rocketry presentation and is open to all members of Carleton University. Its goal is to promote engineering, problem solving and collaboration in the diverse faculties at our school.



HIGHSCHOOL OUTREACH

CU InSpace presents the benefits of the STEM programs to high schools in the Ottawa area. For these presentations, we speak briefly about rocketry, what our team does, and how engineering work out-side of the classroom is done to encourage students to pursue STEM programs and to join us at Carleton.

AFFILIATIONS

CRC Canadian Rocketry Consortium

CUSA Carleton University Students' Association

CSES Carleton Student Engineering Society

CMAS Carleton Mechanical & Aerospace Society

SPONSORSHIP

Sponsoring CU InSpace allows us to provide students with a unique opportunity to apply classroom principles to real-world challenges. With commitment, perseverance, and your support, our members work to improve themselves in both a technical and leader-ship capacity. Your contribution gives your organization exposure at team meetings, during outreach presentations, and at the annual international Spaceport America Cup.

THERMOSPHERE \$1000 +

- ♦ Organization logo added to team website
- ♦ Logo added to team shirts
- ♦ Logo added to competition rocket
- ♦ Honourable mention at public outreach events
- ♦ Organization logo displayed at the end of team video

MESOSPHERE \$500 – \$999

- ♦ Organization logo added to team website
- ♦ Logo added to team shirts
- ♦ Logo added to competition rocket

STRATOSPHERE \$250 – \$499

- ♦ Organization logo added to team website
- ♦ Logo added to team shirts

TROPOSPHERE - \$250

- ♦ Organization logo added to team website
- ♦ Logo added to team shirts



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“per aspera ad astra”– through hardships to the stars



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