CARLETON UNIVERSITY ROCKETRY TEAM

Sponsorship package 2026-2027





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ABOUT US

CU InSpace is Carleton University's rocket engineering design team! We are a team of students who design, build and launch high-powered rockets with a common goal to compete in the International Rocket Engineering Competition and Launch Canada Challenge.

We are proud to be Carleton University's largest design team with around 200 members! The team has a range of backgrounds but we all share a passion for rocketry and spaceflight. CU InSpace hopes to introduce the next generation of rocket scientists and engineers to rocketry through hands-on experience.

Founded in February 2014, InSpace has successfully launched seven rockets at the International Rocket Engineering Competition, four of which competed in the 10,000 foot launch category, and three competed in the 30,000 foot launch category. Additionally, the team has successfully launched three solid rockets at Launch Canada, two of which launched to 15,000 feet, and the third to 30,000 feet. Recently, InSpace has flown two hybrid rockets, launched to a target of 30,000 feet using Student Researched and Developed engines.

The challenges associated with supersonic and high altitude flight require a clean slate design. Alongside our student researched and designed full-composite airframe, we are continuing the development on our innovative reefed parachute, which deploys as a constricted main chute, later opening fully to allow the rocket to land unharmed. With the success of the previous year's flight, our team is working toward the goal of improving and upscaling our fully Student Researched and Designed hybrid rocket engine, which will aim to fly at the 2027 Launch Canada Challenge.



Group photo of all competing university teams and their rockets at the 20256Launch Canada Challenge in Timmins, Ontario.



2 ROCKETS

‘Iced Cappogee’ is the most recent rocket developed by CU Inspace. The vehicle was entered into the advanced category of the 2026 Launch Canada Challenge. The vehicle marked the first successful flight of the team’s Student Researched and Developed hybrid engine.

AIRFRAME
CR26H

WIDTH
5.96 IN

LENGTH
11.5 FT

EMPTY WEIGHT
28.3 KG

LOADED WEIGHT
45.8 KG

BURNOUT WEIGHT
28.3KG

APOGEE TARGET
38,854 FT

MAX. SPEED
2.0 MACH

MAX. ACCELERATION
10.1 G

ENGINE
Paraffin – Nitrous Hybrid

IMPULSE
35,154 NS

AVG. THRUST
3240 N





CR26H ‘Iced Cappogee’ placed 2nd in its category in the 2026 Launch Canada Challenge, flying to 39,279 feet and claiming the Canadian Hybrid Rocket Altitude Record. The rocket was powered by the team’s second SRAD hybrid engine and was the most powerful engine the team has flown to date.

Rasing “Iced Cappogee” on the rail at the 2026 Launch Canada Challenge

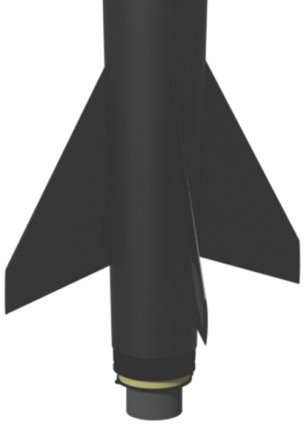
August 2026





'Baja Blaster' is the lightest composite airframe in the team's history, flying at the 2026 International Rocket Engineering Competition. Additionally, the vehicle was the team's second 100% student built airframe, featuring only necessary commercial backup equipment as required by the competition. The flight facilitated the further testing of our SRAD recovery system, providing a critical opportunity to test new systems before the flight of CR26H,

AIRFRAME **CR26**	WIDTH **5.96** IN	LENGTH **11.08** FT
EMPTY WEIGHT **16.29** KG	LOADED WEIGHT **33.08** KG	BURNOUT WEIGHT **27.76** KG
APOGEE TARGET **27,785** FT	MAX. SPEED **1.80** MACH	MAX. ACCELERATION **25.18** G
ENGINE **O5500** Aerotech	IMPULSE **21384** NS	AVG. THRUST **5,514.6** N



CR26 ‘Baja Blaster’ was the first vehicle in the team’s history to launch on the first day of competition, being ready to fly in less than 3 hours. The rocket provided a valuable testing opportunity for our avionics and recovery subteams, paving the way for future developments.

Raising the launch tower for the launch of CR25 “Old El Blasto” at the 2025 Launch Canada Challenge.

August 2025



CU InSpace has attended the Spaceport America Cup competition since 2017, launching 6 times and competing in two virtual competitions. Shown below are some of our past projects.

SPACEPORT 10,000FT COTS CATEGORY

CU L8TER

Launched in 2017 Spaceport America Cup



ORBITAL REDENBACHER

Launched and Recovered in 2018 Spaceport America Cup



CHEF BOYAPOGEE

Launched and Recovered in 2019 Spaceport America Cup



McNOMINAL

Launched and Recovered in 2022 Spaceport America Cup



SPACEPORT 30,000FT COTS CATEGORY

NO NAME

Launched and Recovered in 2023 Spaceport America Cup



RED BULLISTIC

Launched and Recovered in 2024 Spaceport America Cup



BAJA BLASTER

Launched and Recovered in 2026 Spaceport America Cup



LAUNCH CANADA COTS CATEGORY

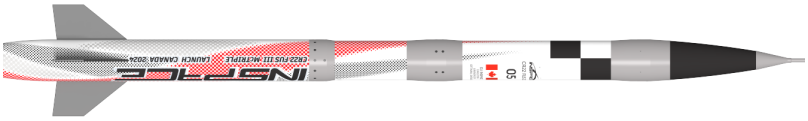
McDOUBLE

Launched and Recovered in 2023 Launch Canada Challenge



McTRIPLE

Launched and Recovered in 2024 Launch Canada Challenge



OLD EL BLASTO

Launched and Recovered in 2025 Launch Canada Challenge



LAUNCH CANADA ADVANCED CATEGORY

QUARTER POUNDER

Launched in 2025 Launch Canada Challenge



ICED CAPPOGEE

Launched aand recovered in 2026 Launch Canada Challenge







3 THE TEAM

The team is divided into 5 subteams that all work together to create our final launch vehicle. These teams are comprised of members with diverse skillsets that come together to focus on one challenge: launching rockets!



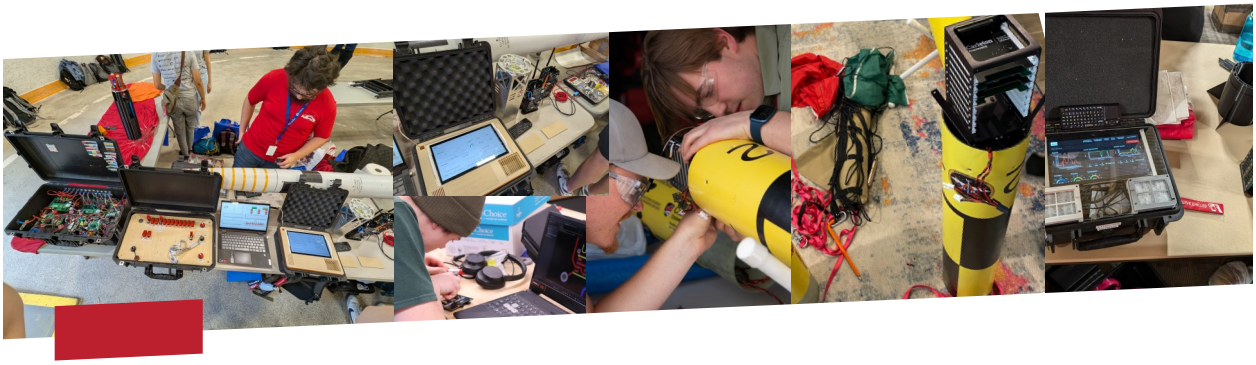
AEROSTRUCTURES

Responsible for creating the structure of the rocket. This includes designing and manufacturing all of the aerodynamic components, as well as the internal structure of the rocket.



RECOVERY

Designs, develops and tests the parachute, release mechanisms, and tethers for the rocket to ensure a soft landing and allow for the intact recovery of the vehicle.



AVIONICS

Responsible for the design and manufacturing of the telemetry systems of the rocket. This includes sensors, data downlink and the student research and designed ground station.



PROPULSION

Developed the hybrid engine flown on “Quarter Pounder” and “Iced Cappogee” at the 2025 and 2026 Launch Canada Challenge. Developing a new and improved engine for the 2027 Launch Canada Challenge.



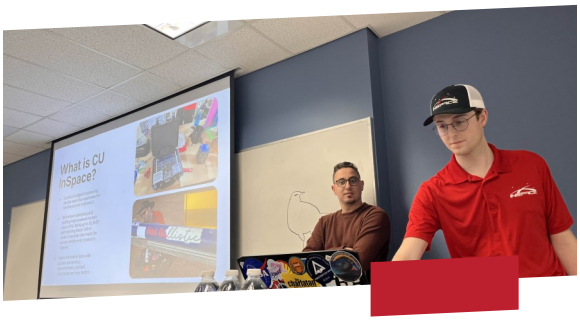
PAYLOAD

Designs and builds a payload that is fixed inside the rocket. The design will feature a hyperspectral camera that can be used for terrain mapping on rocket ascent.

4 OUTREACH

CU InSpace aims to promote rocketry and space education to Carleton University and the Ottawa area! We have established several projects that provide an opportunity for our community to learn about what our club does while providing new challenges for our members, and promoting collaboration with fellow Carleton students.





SMALL ROCKET COMPETITION

An event jointly organized between CU InSpace and the Carleton Mechanical & Aerospace Society. The goal is to promote engineering, problem solving and collaboration amongst students at Carleton University. Teams of students are given a selection of household items from which they build and launch model rockets over the span of an afternoon.

VIRTUAL VENTURES SUMMER CAMPS

Virtual Ventures promote STEM learning for K-12 students through summer Camps and other programming. We have partnered with Virtual Ventures to provide presentations about CU InSpace, and provide an opportunity for middle and high school students to get their hands on our rockets.

CONFERENCE ATTENDANCE

CU InSpace will send delegates to space related conferences in the Ottawa area this year. These conferences provide a valuable opportunity for members to network with industry professionals as well as gain an insight into possibilities for development of our own rocket.

HIGHSCHOOL OUTREACH

CU InSpace presents the benefits of STEM programs to high schools in the Ottawa area. We demonstrate how engineering works out-side of the classroom to encourage students to pursue STEM learning.



5 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 and team continues to strive for technical excellence and innovation.

Your contribution gives your organization exposure at team meetings, during outreach presentations, and at the annual international Spaceport America Cup and Launch Canada competitions.

EXOSPHERE
$7000+

Logo of organization added to team website
Logo added to final presentation slide
Semi-annual progress update
Large Logo added to **top** of vertical banner
Large Logo added to **top** of team shirts
Large Logo added to competition rocket
Honourable mention at outreach events

THERMOSPHERE
$5000–7000

Logo of organization added to team website
Logo added to final presentation slide
Semi-annual progress update
Large Logo added to vertical banner
Large Logo added to team shirts
Large Logo added to competition rocket

MESOSPHERE
$2000–5000

Logo of organization added to team website
Logo added to final presentation slide
Semi-annual progress update
Large Logo added to vertical banner
Large Logo added to team shirts

STRATOSPHERE
$1000–2000

Logo of organization added to team website
Logo added to final presentation slide
Semi-annual progress update
Logo added to vertical banner
Logo added to team shirts

TROPOSPHERE
UP TO $1000

Logo of organization added to team website
Logo added to final presentation slide
Semi-annual progress update
Logo added to vertical banner



Carleton University | Faculty of Engineering and Design | Department of Mechanical and Aerospace Engineering | Department of Systems and Computer Engineering

SOLIDWORKS

DOMINION DYNAMICS

MHIRJ

METAL PROS
THE SMALL QUANTITY METAL SHOP

KEFC

CARLETON STUDENT ENGINEERING SOCIETY

LEONARDO DRS

Ansys

Tacuna Systems

Malleum

ESCOM
ELECTRICAL DISTRIBUTORS

TITAN
BUILDING PRODUCTS
THE ART OF BUILDING

SECO SEALS

IEEE Women in Engineering
WIE
Carleton University
IEEE Student Branch

CUSA
CARLETON UNIVERSITY STUDENTS' ASSOCIATION

Altium

PROTOCASE

molex

Morrison's Quarry

VSS

AUTOMATIONDIRECT.com



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CR22 "McNominal"

June 2022



"CR22 III McTriple" Post Recovery

August 2024