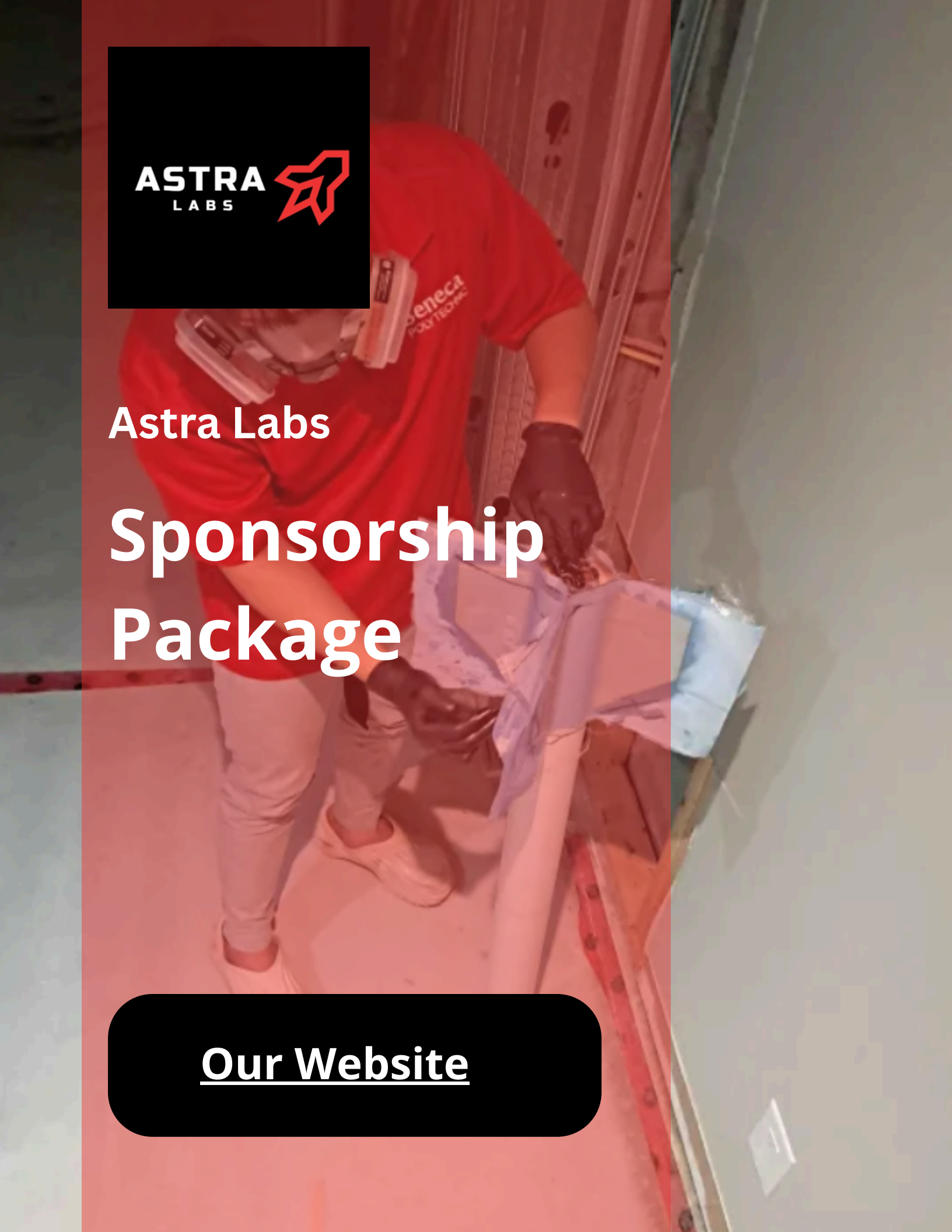

Astra Labs

Sponsorship Package

Our Website

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Goals and Objectives

Educational Outreach

Competition Participation

Content Creation

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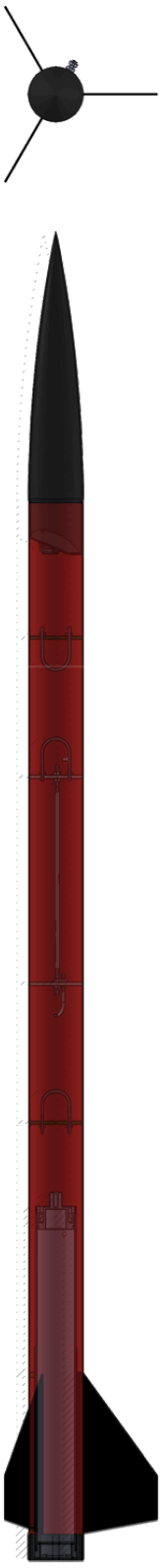
Project and Competition Details

Our rocket is designed for high-powered flight, targeting a 2 km apogee using commercial off-the-shelf (COTS) or student-researched components. Key features include:

- **Altitude Goal: Precise flight to 2 km with reliable recovery systems.**
- **Safety and Compliance: Adherence to CAR safety codes, including ground testing and certification requirements.**
- **Innovation: Integration of educational payloads, such as sensors for data collection, to demonstrate rocketry principles.**

We will compete in the Launch Canada Challenge. To find out more about Launch Canada, please visit

PIONEER – VEHICLE OVERVIEW



Aerostructure

Airframe: 10G fiberglass tubes - 3-section (Upper, Middle, Lower)

Nosecone: Von Kármán fiberglass, 5:1 profile

Fins: 3× trapezoidal G10 fiberglass, through-the-wall mount

Stability: -2.48 Cal static margin

Target Apogee
2.8 km

Peak Velocity
Mach .89

Propulsion

Motor: Cesaroni L1355-P (4-grain)

Impulse: 4,025 Ns total
Burntime: ~2.97 seconds

Max Thrust: 1,792 N

Avionics

Flight Computers: 2× Altimeters (redundant) 2× GPS Tracking

SRAD Board: STM32 + LoRa telemetry

Ground Station: Custom SRAD, real-time web server

Payload
50 Picosat

Launch Mass
12.6 Kg

Recovery

System: Dual-deployment, dual-separation

Drogue: 18" Explorer (-20 m/s descent)

Main: 60" chute at 500 m (-5 m/s landing)

Ejection: Black powder charges, e-match actuated

Benefits for Sponsors

We are a student-led group, consisting of 170+ members. By partnering with us, your organization will receive many benefits, including:

Visibility and Branding to Seneca

Talent Pipeline

Community Goodwill

Custom Engagement

Your Investment

We offer flexible sponsorship levels to suit your organization's goals and level of involvement. All tiers include regular project updates and a personalized certificate of appreciation. Contributions can be monetary, in-kind, or services .

Tier	Amount (CAD)	Benefits
Bronze	$500+	• Logo on team website and social media posts • Acknowledgment in YouTube Shorts credits • Access to team resume book for recruitment
Silver	$1,500+	• All Bronze benefits • Dedicated social media shoutout and video mention • Invitation to campus launch demos
Gold	$3,500+	• All Silver benefits • Priority access for company info sessions or workshops • Custom thank-you video
Honour	$4,000+	• All Gold benefits • Exclusive recruitment event or team presentation • Model rocket replica

Bronze Package Price:	Silver Package Price:	Gold Package Price:	Honour Package Price:
$500+	$1,500+	$3,500+	$4,000+

Next Steps

We're excited to partner with you! For questions, custom proposals, or to pledge support, reach out to:

Team Lead

Saiprasad Dhodi | President
Roger Lungsee| Vice President
Danielle Heron | Treasurer

Social Media

linkedin.com/company/astra-labs-engineers

Email

astralabsengineering@gmail.com

Thank you for considering sponsorship of the Seneca Polytechnic Astra Labs. Together, we can launch the future of Canadian rocketry!

Our Supporters

We're deeply grateful to our supporters—your belief fuels our mission.Your generosity empowers every launch, every breakthrough.Together, we're building the future of aerospace innovation.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