



DAL FSAE

Sponsorship Package 2023/2024



 EV

AN INTRODUCTION

Dear Sponsor,

Dalhousie's Formula SAE team aims to design, build, and test an open wheeled race car capable of competing with the top Universities in Canada and beyond. Building on over 10 years of FSAE history at Dalhousie, the 2023-24 Dalhousie FSAE team is designing our second fully electric vehicle. Our team consists of 40 dedicated student team members who are focused on 5 exciting technical development areas including composite aerodynamic elements, a brake system, an electric drive train, a comfortable and inclusive ergonomic system, and a suspension system.

As we begin building the new and improved rendition of our vehicle, we need additional funding to pursue the development of our advanced battery system, invest in our composite manufacturing methods and expand upon the training and education of our team members.

Supporting our multidisciplinary student team focused on developing a clean electric vehicle is an opportunity to positively impact the student community, promote sustainable transportation and advance the future of mobility. By pushing the boundaries of technology and innovation, we aim to demonstrate the immense potential of electric vehicles and inspire a greener future. Financially supporting this project as a sponsor or donor is an opportunity to invest in the next generation of Canadian engineers skilled in clean technology development while providing your brand with a unique opportunity for exposure and association with a cutting edge and environmentally conscious initiative. Further, it will allow you to foster a lasting relationship with the most experienced and innovative Dalhousie engineering students.

I hope you will join us on this exciting journey to building Dal's second electric vehicle.

Sincerely,

James McIntosh
Team Captain



James McIntosh
Dal FSAE Team Captain,
Dalhousie University

ABOUT FORMULA SAE

Formula SAE is an annual design competition run by the Society of Automotive Engineers (SAE), that takes place at nine different locations around the world. The competition originated in the USA in 1980 and requires student teams to design and build an open-wheel, formula-style race car. The culmination of the project is when the cars, built by participating universities from all over the world, compete in several dynamic and static events.

The competition is an excellent opportunity for university students to obtain firsthand experience in the inter disciplinary fields of project management, collaboration, critical decision making, budget management, engineering design, automotive engineering, system design & ergonomics to name a few. The project is conceived, engineered & managed entirely by students, with the aid of a faculty advisor.

The events at each series competition are judged in order to determine each car's performance in addition to the manufacturability, cost, and sales potential through the use of both static and dynamic events – cumulatively valued at a possible 1000 points out of which the participating vehicle can be scored.



STATIC EVENTS	DYNAMIC EVENTS
<ul style="list-style-type: none">• Engineering Design• Business Presentation• Cost Analysis	<ul style="list-style-type: none">• Acceleration• Autocross• Skidpad• Endurance/Efficiency





OUR TEAM

Dalhousie Formula SAE engages students from multiple disciplines of engineering, as well as all areas of business & design. Our team is committed to designing and constructing a cutting-edge vehicle to compete in world renowned competitions such as Formula SAE Michigan Electric. Our goal is to demonstrate the power of electric vehicles, while developing the skills necessary to bring to industry upon graduation.



2007

- Teams Inception, competed in Formula West, placing 53 out of 80 teams

2010

- After two-year hiatus, team restarted and competed in Michigan for the first time, placing 93rd out of 120 teams

2011

- Competed in Michigan for second time, improving overall placing to 77th out of 120 teams

2012

- Competed again in Michigan placing 58th overall, and among the top ten for technical drawings

2013

- Continuing to build on the team's success in Michigan, placed 40th overall out of 120 teams, and for the first time competed in the UK finishing mid field

2014

- Taking on more innovative designs, faced challenges in Michigan, placing 60th overall, but placed 14th in business presentation.
- Competed in the UK, placing 20th overall

2017

- The team changed drivetrain to a CRF-450 Engine and attended both FSAE Michigan and Formula North.

2018

- After a difficult Michigan competition where the team struggled with a failing starter motor, the team refined the drivetrain system through a new electronic shift mechanism and datalogger

2019

- DMS-19 competed in Michigan again, where the team placed 48th out of 110 teams, scored 17th in engine efficiency, and the car was able to complete all dynamic events.

2023

- After a successful 2019 season and a global pandemic, the team entered a 1.5 year design cycle to transition to an electric drivetrain by developing new system models and administrative processes. The team competed in FSAE Michigan, and while unable to pass accumulator inspection, managed to place 37th out of 61 competing teams.

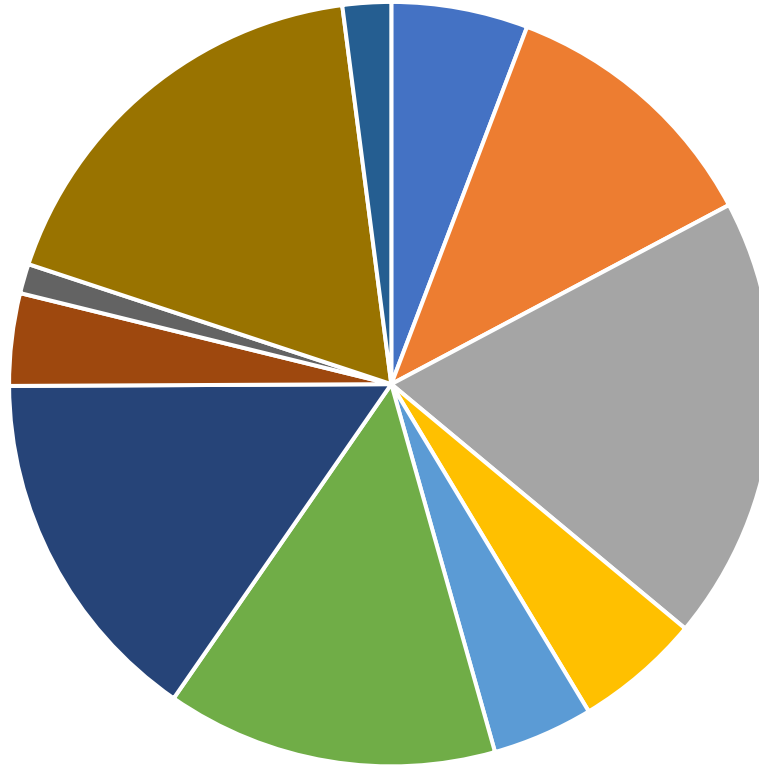
OUR CAR – Evolution of DMS-19 to DMS-24



	Vehicle Comparison	
	DMS-19	DMS-23/24
Layout	Open-Wheeled, Formula Style	Open-Wheeled, Formula Style
Overall Weight	260 kg w/driver	270 kg w/driver → 230 kg w/driver
Dimensions	3095 mm long, 1320 mm wide, 963 mm MRH height	3095 mm long, 1320 mm wide, 963 mm MRH height
Acceleration	5.3 seconds (0 – 100 km/h)	4.0 seconds (0-100km/h)
Top Speed	110 km/h	120 km/h
Suspension Performance	Peak Lateral Acceleration: 1.5G Peak Acceleration: 0.6G Peak Deceleration: 1.3G	Peak Lateral Acceleration: 1.7G Peak Acceleration: 1.3G Peak Deceleration: 1.3G
Engine	Honda CRF 450 RR	Emrax 228
Performance	Peak Power: 37 kW @ 9000 rpm Peak Torque: 40 Nm @ 7500 rpm	Peak Power: 80 kW @ 9000 rpm Peak Torque: 130 Nm @ 0 rpm
Body	Carbon Fiber, Vacuum wet lay up	Carbon Fiber, Vacuum wet lay up

OUR BUDGET

- Aerodynamics
- Brakes
- Drivetrain
- Electrical & Software
- Ergonomics
- Frame
- Suspension
- Marketing
- Events
- Competition
- Miscellaneous



Sub-System	Total
Aerodynamics	\$3,179.18
Brakes	\$6,301.42
Drivetrain	\$10,342.99
Electrical & Software	\$2,926.75
Ergonomics	\$2,347.15
Frame	\$7,708.45
Suspension	\$8,406.50
Marketing	\$2,147.00
Events	\$690.00
Competition	\$9,826.42
Miscellaneous	\$1,128.37
Subtotal	\$55,004.23



THE EXPOSURE

The Dalhousie Formula SAE Team is one of Dalhousie University's most outstanding student teams; In the past, we have successfully participated in many events, both within our local community and at international Formula SAE events.

As a sponsor, you will be able to gain exposure by means of branding on our car, merchandise & online media.

The car itself is prominently displayed at competitions, fundraising events and local trade shows.

An opportunity to participate in team community events presents itself throughout the year.

A few of the events we have participated in..



THE OPPORTUNITY

✓ Opportunity to support budding student talent in the fields of engineering, business and design

The team is completely run and managed by students who work tirelessly to gain valuable industry experience, and for the chance to win at an internationally recognized competition. Your support will help the students to apply their talents and knowledge as well as learn something new along the way!

✓ Opportunity to gain valuable brand exposure; locally, nationally & internationally

As mentioned previously, the team successfully participates in many different events, both within our local community and at international Formula SAE competitions.

✓ Opportunity to network with future career professionals

As a sponsor you will be able to gain valuable access to the leaders and career professionals of tomorrow who might prove to be a useful asset as they begin their career journey upon graduation.

✓ Opportunity to associate yourself with the current & future success of a Dalhousie University student team

As a sponsor, you will become an integral part of the team and become a key stakeholder in the current and future successes of the team. You will be kept up to date on all team happenings and events, and even have the opportunity to participate in them.

✓ Opportunity to create Employee Engagement

As a sponsor, you and your company's employees are welcome to attend major team events, as well as testing events. More importantly, the team is always seeking industry professionals who can act as mentors for student team members. Not only will this encourage employee volunteerism, it can also be a truly rewarding experience for the employee mentor and of course the students.

✓ Opportunity to participate in the exciting world of Formula Student Racing

As a sponsor, you will gain a front seat view to the exciting world of Formula Student racing, and the high-octane engineering that goes hand in hand. You will revel in the success and be a part parcel of all the accolades the team has a chance to win and be kept up to date on all team happenings.

THE PACKAGE

	Sponsorship Level			
	Platinum *	Gold *	Silver	Team Partner
Donation	\$10,000+	\$5,000+	\$3,000+	< \$1,000
Your Exposure				
Car Available for Event Appearances	✓			
Team Merchandise	✓	✓		
Distribution of Sponsor Merch at Events	✓	✓		
Team Website	✓	✓	✓	
Vehicle Graphics	✓ (XL)	✓ (L)	✓ (M)	✓ (S)
Team Banner	✓	✓	✓	✓
Team Social Media	✓ (12 Individual)	✓ (6 Individual)	✓ (6 Grouped)	✓ (3 Grouped)

**Platinum & Gold level sponsors are based on majority cash donations only.*

***We understand that each sponsor may have unique requirements and objectives. We are more than willing to tailor a sponsorship package to meet your specific needs and maximize the value of our partnership.*

- Dalhousie Motorsports accepts multiple forms of sponsorship and donations including monetary & product sponsorship, along with any other form of need based in-kind contributions.**
- Sponsorship level for all gifts in kind will be determined by market value.
- Tax deductible receipts from the university are issued to persons making monetary donations and not expecting anything in return such as advertising.

THANK YOU

Sponsorship is your chance to be associated with the current & future successes of Dalhousie University at an International level. Thank you for taking the time to review our sponsorship package and learn about the Dalhousie Formula SAE Team. We invite you to be a part of the Formula SAE experience & help us achieve our dream of winning the competition. With your help, we may well be on our way to bringing our vision to life and driving to success together.

If you have any questions, or would like to learn more about the team, competition and other ways to get involved, please feel free to contact us at the addresses below, or via social media. If you had a specific question, please contact the relevant individual to the right.

We look forward to the possibility of partnering with you and making a lasting impact on the world of electric racing!

Dalhousie Formula SAE

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