## QUEEN'S RELECTRIC Sponsorship Package

relectric.sponsorships@engsoc.queensu.ca www.queensrelectric.ca



# ABOUT US

The Queen's Relectric Car Team, a student-led Smith Engineering design team, is dedicated to retrofitting old combustion engine vehicles with new Electric Vehicle (EV) systems. Our mission is to streamline EV conversions and provide hands-on experience to undergraduate members in sustainable automotive technology. We aim to create solutions for new mechanical, electrical, and thermal systems in these conversions and develop a framework for widespread adoption, reducing waste in the global transition to electric vehicles.

#### OUR PROJECTS.

Our five technical sub-teams are developing new vehicle components that create a seamless approach to EV conversions. The team is currently electrifying both a Go-Kart and a 1997 Jeep TJ, renewing their lifecycles with more sustainable technologies. Research and optimization are at the forefront of our process.

#### **OUR SHOWCASES AND COMPETITION.**

Our team will be showcasing our renewed vehicles in numerous car and science shows, such as the Kingston Science Rendezvous, to demonstrate the value of EV conversions. Furthermore, our team will be participating at the GM EcoCAR challenge in 2026, which runs on a 4-year cycle. We aim to build awareness of new approaches to sustainable transportation while highlighting our engineering design work.

#### **OUR COMMUNITY ENGAGEMENT.**

Queen's Relectric is working with Queen's Black Youth in STEM to conduct workshops for youth of grades 1-8, introducing concepts such as energy, sustainability, and automotive systems to the next generation of innovators.



## THE 2023 EXECUTIVE TEAM



Brandon Lewis in Team Captain



Samuel Beylerian in



Gabriel Huyer in



Bridget Curtis in

#### **Mechanical** Lead

#### **Electrical Lead**

#### **Interior Lead**

in



Jack Carnahan in Assembly Lead



Dani Zhao Thermal Lead









## THE RELECTRIC TEAM

We are a group comprised of 115 like-minded individuals who share a passion for developing a more sustainable future through innovative problem solving. We foster a collaborative and inclusive environment in which all undergraduate members have the opportunity to think critically and gain valuable hands on experience working with cutting edge technology.

#### OUR COMMITMENT TO EDII.

Since Queen's Relectric's founding, fueled by an equal-opportunity hiring process, there has been a continuous goal to engage individuals of all backgrounds to get involved in the automotive industry. We are additionally partnering with Queen's Women in Engineering to create more opportunities for female-identifying students.



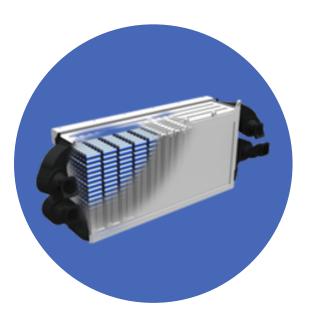


# OUR SUB-TEAMS

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### **MECHANICAL SUB-TEAM**

The Mechanical Sub-Team is responsible for the design and manufacturing of internal component mounts and casings. This is accomplished by the creation of detailed engineering drawings and their integration into SolidWorks.



### **ELECTRICAL SUB-TEAM**

The Electrical Sub-Team is responsible for the design, testing, and implementation of Relectric's battery management systems, motor controllers, and interior 12V systems. This is accomplished using SolidWorks Electrical, and by abiding to high-voltage working protocols throughout system installation.



#### **INTERIOR SUB-TEAM**

The Interior Sub-Team is responsible for the implementation of user experience enhancement technologies, such as the vehicle's digital dashboard and head unit. This requires extensive work with low voltage interfacing and programming within Raspberry Pi OS.



#### **ASSEMBLY SUB-TEAM**

The Assembly Sub-Team is responsible for all vehicle restoration and upfitting, as well as appropriate application and precision-fit of custom manufactured parts. Safety measures, power tool training, and supervision have been implemented to ensure that all processes undertaken with the vehicle are completed safely.



#### **THERMAL SUB-TEAM**

The Thermal Sub-Team is responsible for the computation-driven design and implementation of Relectric's heat management systems. Thorough research and precise calculations of heat discharge and equivalent performance requirements are the basis of the team's processes.



### **BUSINESS SUB-TEAM**

The Business Sub-Team is responsible for the financial and operational management of Relectric. A professional brand image is at the forefront of the team's processes, as Relectric seeks financial support from external corporations.



# SPONSORSHIP TIERS

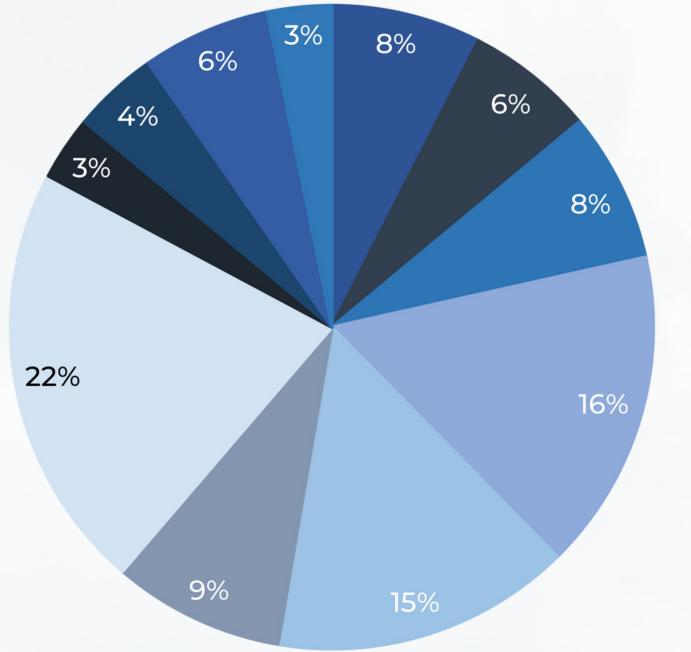
Acknowledging the substantial costs entailed in procuring technologies such as battery systems, electronic interfaces, tools, and raw materials, Queen's Relectric is currently seeking both financial contributions and in-kind support from corporations who align with our sustainability-focused mission. In addition to the empowerment of student innovation, your organization will gain access to our tiered benefits package outlined below.

	Bronze	SILVER	Gold	Platinum
Minimum value of contribution to qualify	\$500	\$2,000	\$5,000	\$10,000
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Logo Size on the		C	R A	

Go-Kart	S	Μ	L
Logo Size on the 1997 Jeep TJ		Μ	L
Logo on Team Merchandise			
Spotlight Post on Instagram & LinkedIn			
Team Résumé Drive			
Host an informational & recruitment workshop			
			ccctic

## WHY SPONSOR US?

#### **OUR DIVERSE MEMBER DIRECTORY.**



Mathematics and Engineering

- Commerce
- Computer Engineering
- Electrical Engineering
- Mechanical Engineering
- Mechatronics Engineering
- General Engineering
- Health Science
- Mining Engineering
- Chemical Engineering
- Engineering Physics

#### **OUR ROBUST MARKETING CHANNELS.**

### **2.8**K

**1.2K** 

### 480

Accounts reached via Instagram Posts in last 90 days

Accounts reached via Top Instagram Posts

LinkedIn page views per 90 days

#### **ACKNOWLEDGING OUR PAST SPONSORS**

As Relectric's newest sponsor, you will join our list of prestigious corporate partners.





