THE UNIVERSITY OF BRITISH COLUMBIA

UBC Formula Electric

UBC Formula Electric

2025/2026 Sponsorship Package

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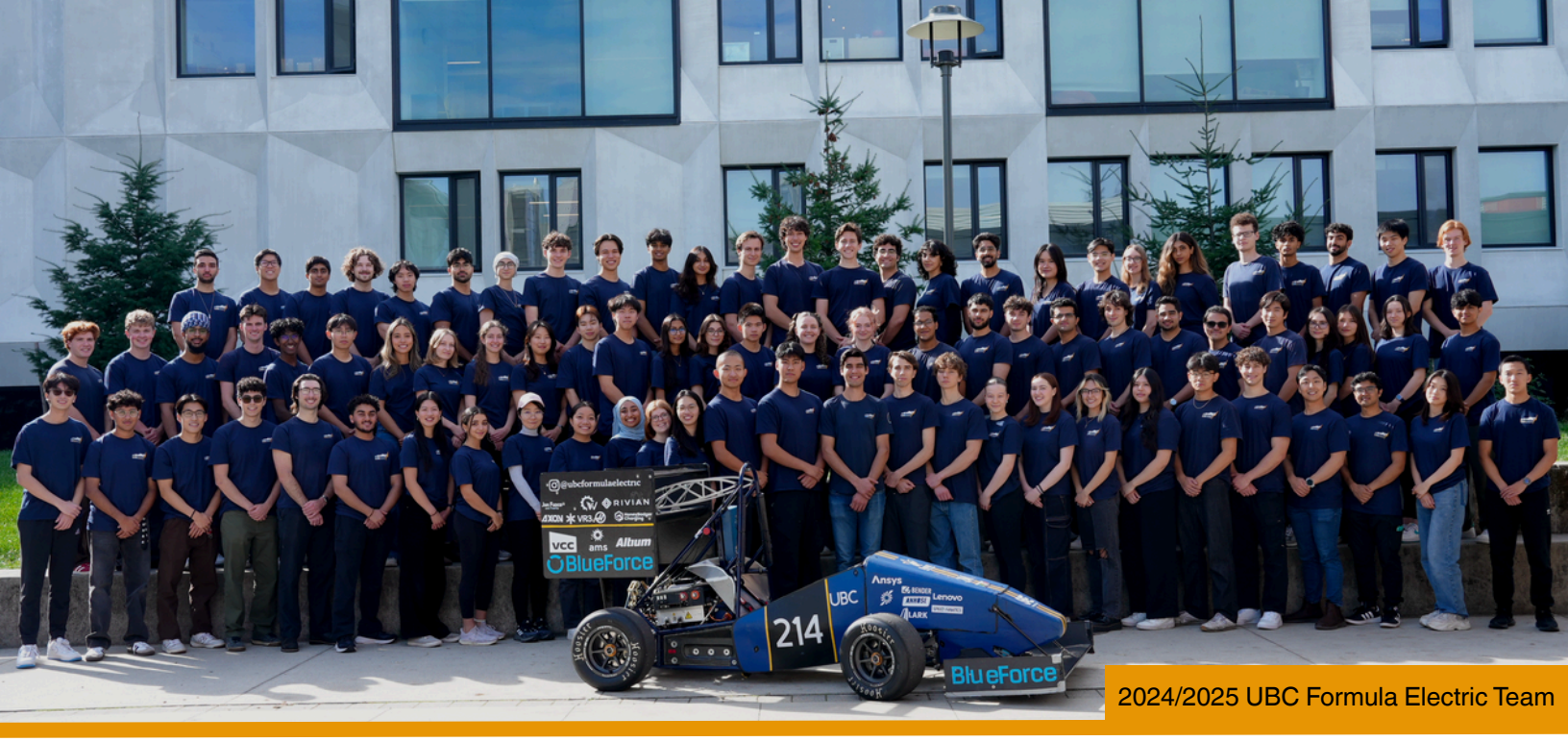


2024/2025 UBC Formula Electric Team

About Us

We are a student engineering design team from the University of British Columbia that designs and builds electric race cars to compete in the Formula SAE series. For decades, internal combustion engines (ICE) have been the norm in motorsport and class. We challenge that notion and instead provide students with the opportunity and resources to develop, expand, and apply their engineering skills with an electric drivetrain.

The Formula SAE series requires a diverse array of technical abilities forming several subteams, each focusing on building a specific car segment. With the complexity of these events, we rely on strong student management and business team to operate and manage this small organization while racing around the world.

Our team consists of over 90 students from various disciplines, not just engineering. Members learn about the many complexities and intricacies of designing and building an electric vehicle from scratch. Nearly all of our team's parts are manufactured by students, cementing in their minds the process and how to improve upon it. Since we are students first and foremost, we instil a significant focus on managing projects and teams to ensure they're done on time, on budget and, most importantly, make us faster.

Our mission is to to challenge students in developing a hands-on well-engineered, high-performance electric race car to prove that sustainability can be competitive and exciting.

Our Directors

Éliane Lapointe

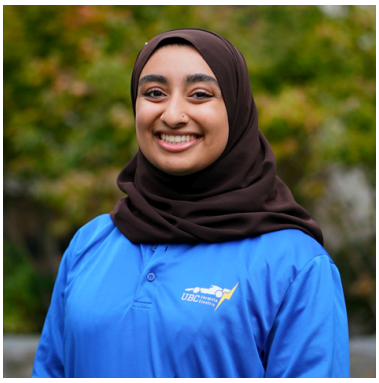
Team Captain

Howard Gong

Mechanical Director

Edwin Zheng

Software Director



Fatima Khan

Co- Electrical Director

Soroush Rohanizadeh

Co- Electrical Director

Victoria Munro

Business Operations Director

Our History

UBC Formula Electric

2015

After the completion of Elektra, the UBC Electric Car Club pivoted its focus away from electric drag racing and became UBC Formula Electric to build fully in-house electric race cars for the Formula SAE (FSAE) competition.

First Competition

2018

We competed at Formula North 2018 in Barrie, Ontario, with our first electric race car, Luna. In our first competition ever, Luna passed all the technical inspections and placed 7th overall out of 18 teams.

Thruna

2022/23

Utilizing data collected from Tuna at competition and testing, we were able to optimize and improve the design of our 2023 vehicle, Thruna, a continuation of our two-wheel drive architecture. At FSAE Michigan 2023, we placed 2nd in the efficiency event and 21st overall.

UBC Electric Car Club

2009

The UBC Electric Car Club (2009-2015) converted a 1972 Volkswagen Beetle to highlight the short-range performance of electric powertrains, naming it Elektra. At its peak, Elektra produced approximately 240kW/320 hp of power.
Fun fact: Elektra was the first electric car to drive across Canada!

First Formula E Car - Luna

2017

Luna was our first car specifically designed to for the Formula SAE competition. It was completely student designed from the ground up. Over the course of a year, we developed, tested, and built the electrical and mechanical systems.

Tuna

2019/22

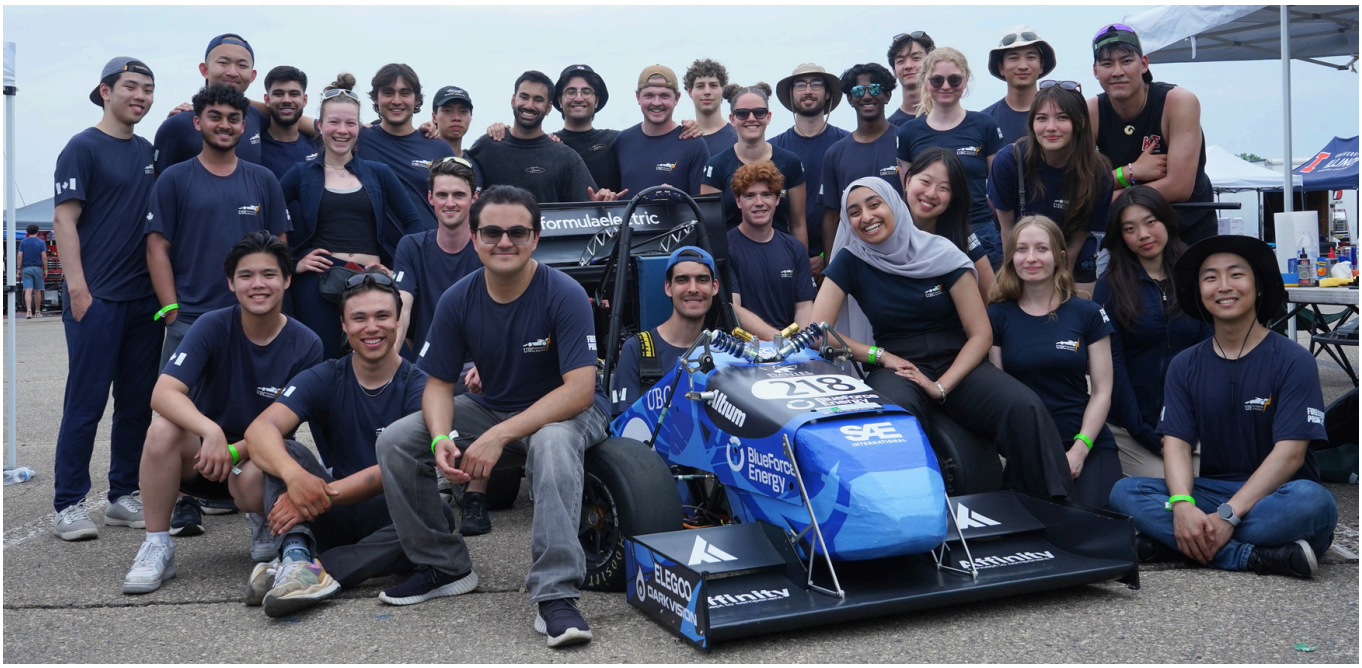
We spent the first half of our 2019 season working on our second-generation car, Tuna. Due to the pandemic, we experienced significant delays in manufacturing the car; however, this did not stop us from completing it. We competed with our car, Tuna, in our first FSAE competition in 2022, placing 20th out of 50 teams.

Quadruna

2023/24

Using our previous experience, we were able to make significant improvements at FSAE Michigan. We successfully developed our first aero kit! We completed all inspections and dynamic events, placing 31st overall out of 69 teams. Building on lessons learned in 2024 and continued testing on Quadruna, we have developed comprehensive plans for 2025.

2024/25 Season



Our team is driven by a commitment to challenge ourselves, pursue bold ideas, and grow through hands-on education. This season, that commitment took shape through a significant technical leap: transitioning our powertrain from two-wheel to four-wheel drive. To support this innovation, we completely redesigned our chassis and suspension to integrate in-hub motors, a milestone that marked a significant step forward in our engineering capabilities. In parallel, our accumulator team successfully developed and implemented a 600V battery pack, further advancing the performance and complexity of our vehicle. These upgrades were ambitious, and bringing them to competition was no small feat. While the event presented its challenges, we returned to Vancouver with a deep sense of pride in the risks we had taken and the knowledge we had gained.

This year was about more than just building a car; it was about learning, evolving, and growing as a team. We gained invaluable insights from experienced judges and fellow teams, all of which will shape our development in the seasons to come. None of this would have been possible without our incredible sponsors. We are continuously grateful for their support. Their generosity empowers us to turn vision into reality, experiment with leading-edge technologies, and continue learning through real-world engineering challenges.

We are energized by what we've accomplished this season and even more excited for what lies ahead.

About Competition

Overview

Formula SAE is an engineering student design competition organized by SAE International that requires performance demonstration of vehicles in a series of events, both off-track and on-track against the clock.

Each competition gives teams the chance to demonstrate their creativity and engineering skills compared to various university design teams from around the world.

Outline

Each design will be evaluated against competing designs in a series of Static and Dynamic events to determine the vehicle that best meets the design and performance goals in addition to being profitably built and marketed through a business case competition.

Static Events (325 pts)

Presentation | 75 pts
Create a comprehensive business, logistical, production, or technical case to convince outside interests to invest in the team's concept.

Cost | 100 pts
Explain our budget and decisions in terms of performance tradeoffs.

Design | 150 pts
Evaluate the engineering effort that went into the vehicle and how our design meets the intent of the market in terms of vehicle performance and value.

Dynamic Events (675 pts)

Acceleration | 100 pts
Vehicle acceleration on a straight 75-metre line on flat pavement.

Skid Pad | 75 pts
Vehicle cornering ability on a flat surface while making a constant radius turn.

Autocross | 125 pts
Vehicle maneuverability and handling qualities on a tight course.

Efficiency | 100 pts
The Efficiency event evaluates the energy used to complete the Endurance event.

Endurance | 275 pts
Vehicle's overall performance and tests durability and reliability.

Competition Highlights

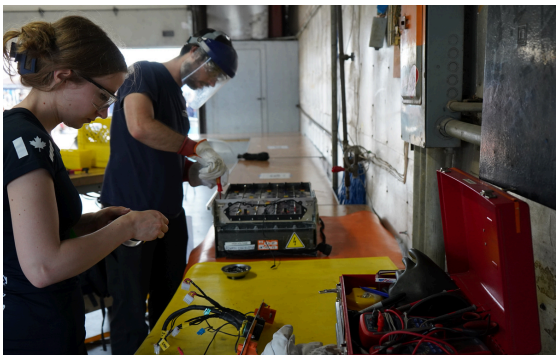
46TH PLACE Overall

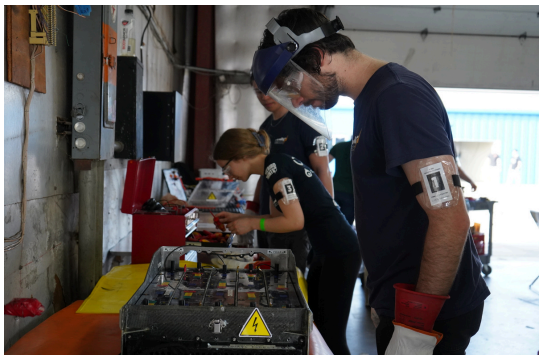
22ND PLACE Business Presentation

49TH PLACE Cost

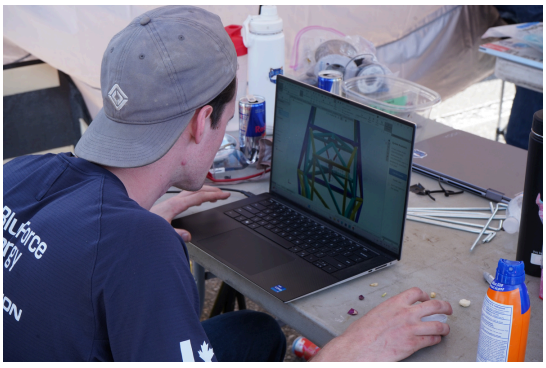
55TH PLACE Design

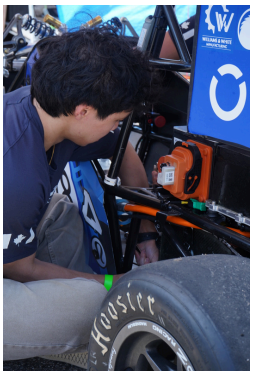
Despite the ambitious nature of our upgrades, we successfully met critical technical benchmarks during the competition, passing both accumulator and mechanical inspections. Out of over 100 international teams, we were proud to place 46th overall, earning a spot in the top 50. During the static events, we presented detailed design reviews of the vehicle's key subsystems. We also delivered a comprehensive cost report and proposed a viable manufacturing solution in response to this year's cost scenario.





Our accumulator team worked in the hot works station during inspection, helping ensure the vehicle met key safety and technical requirements.

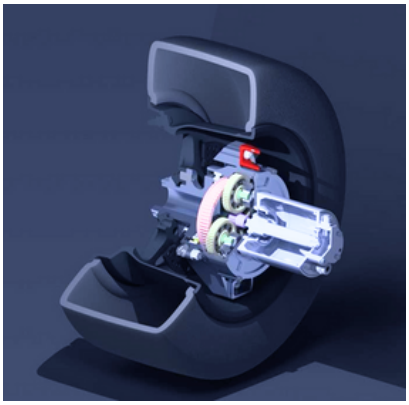


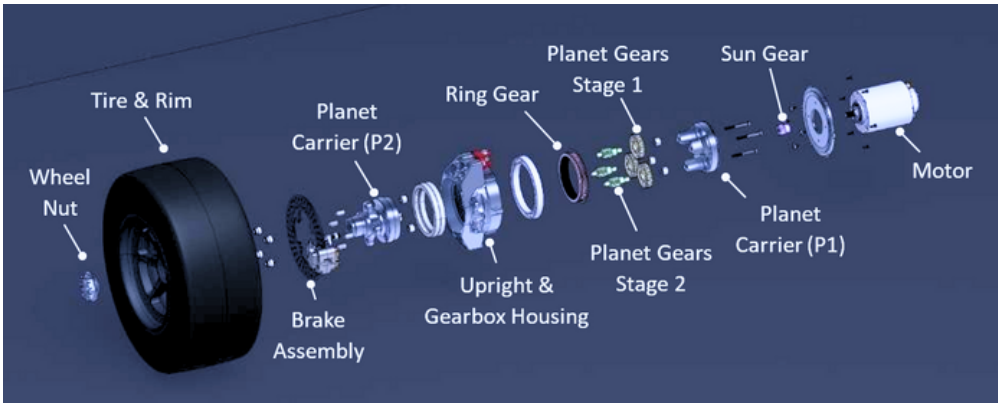


Our mechanical team received feedback and made real-time adjustments during inspection, demonstrating adaptability and attention to detail.

2024/25 Design

In-Hub Motors:

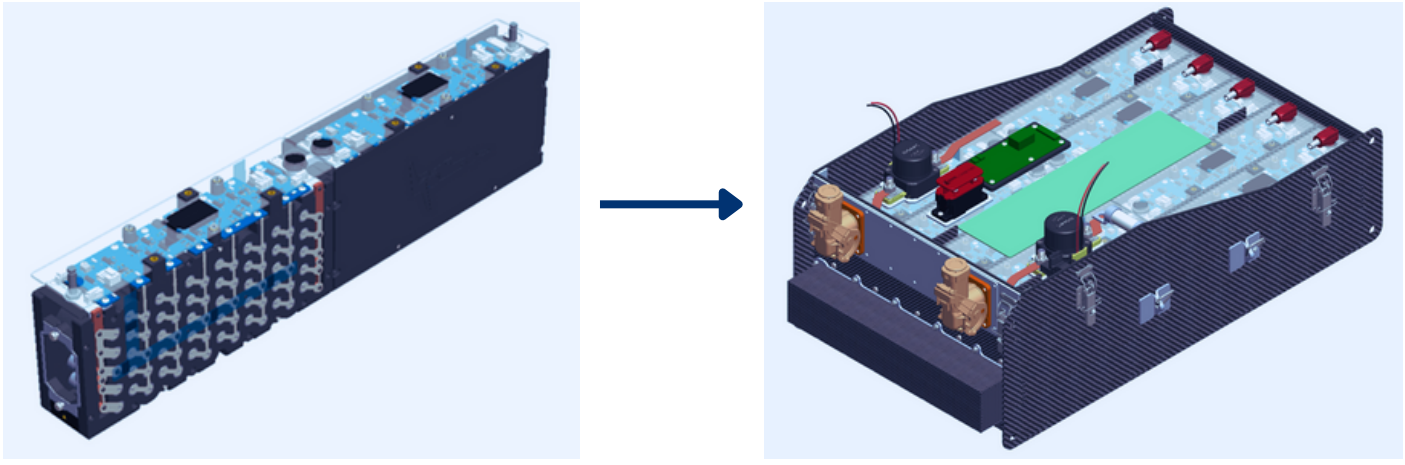




Leading the powertrain changes this year was the introduction of in-hub motors, marking a transition from Rear-Wheel drive to All-Wheel drive. This change required the team to complete a full redesign of the chassis (reducing weight below 240kg while accommodating other design changes) and suspension systems (switching to a pushrod configuration). Additionally, the transition to in-hub quad-motors enabled the use of torque vectoring, resulting in a significant improvement in stability compared to its counterpart.

Optimized Battery Architecture and Electronics:

This year, we made a significant advancement in battery design by transitioning from pouch cells to 18650 form while increasing the voltage from 300V to 600V, thereby enhancing performance and paving the way for future battery innovations. Additionally, the electrical team developed over six custom-designed PCBs to support the new battery system while improving robustness and efficiency during operation.



Why Support Us?

Sponsoring us supports UBC students beyond the design and manufacturing of our vehicles.

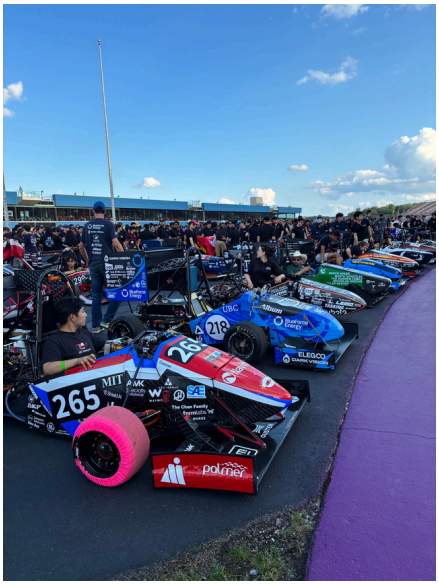
Reason

UBC Formula Electric strives to be the starting point for the finest engineers in sustainability and for the leaders of the future.

At UBC, we use the projects you fund and the opportunities you give to achieve:

- **Technological Innovation**
- **Environmental Sustainability**
- **Vehicles that are powerful, precise, and inexpensive**

Our team focuses on supplementing the education of our team members with hands-on experience. We are passionate about not only creating a new, innovative future that will keep our planet green for generations but also promoting investment into projects such as ours, which is a necessary way of achieving this goal. Our team is driven and willing to collaborate for any Co-op opportunities offered within your company.



Next Steps

With your help, we can further develop the learning of our team members to cultivate and inspire the next generation of leaders, engineers, and environmentalists in developing a better future.

Sponsorship Benefits

	Bronze $1,000	Silver $2,500	Gold $5,000	Platinum $10,000	Ruby $15,000	Diamond $20,000
Receive the monthly newsletter	✓	✓	✓	✓	✓	✓
Logo on car and website	✓	✓	✓	✓	✓	✓
Static social media post (LinkedIn and Instagram)		✓	✓	✓	✓	✓
Invitation for shop tour with team members			✓	✓	✓	✓
Logo on team apparel				✓	✓	✓
Exclusive sponsor spotlight video (LinkedIn and Instagram)					✓	✓
Signed and framed team t-shirt						✓
Logo on car (size in cm^2)	12	18	20	30	40	50

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