



THE UNIVERSITY
OF BRITISH COLUMBIA



UBC Formula Electric Sponsorship Package

Wayne and William White Engineering Design Centre

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About Us

Mission

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

Approach

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.

Process

We are a team of over 70 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 instill a significant focus on managing projects and teams to ensure they're done on time, on budget and, most importantly, make us faster.

Team Leads

ENGINEERING TEAM



Joe Thurston
Team Captain - 6th Year

Joe oversees the direction of our team and works across the technical disciplines to ensure the work of all sub-teams comes together smoothly and aligns with the team's goals. As captain, he also coordinates the business and technical aspects of the team to make sure we are on-time and on-budget with our technical work.



Aidan Kennedy
Mechanical Director - 4th Year

As the mechanical director, Aidan oversees the development of all the mechanical sub-teams while personally leading the drivetrain team. He focuses on supporting future talent and integrating the mech subsystems with the electrical and firmware teams to bring their best package to the track. He is very confident in the current mech team and looks forward to the challenging projects on the horizon!



Chris McIntyre
Electrical Technical Director - 3rd Year

Chris is responsible for vehicle electronics design and integration. He oversees development of a variety of electrical subsystems, including vehicle controls, high-voltage battery management, sensors processing, and harness design. His goals for the team are to advance technical development, improve manufacturing processes, and provide opportunities for members to grow into successful engineers.



Edwin Zheng
Firmware Director - 3rd Year

Coming from a competitive programming and software engineering background, Edwin seeks to apply his background to developing software for automotive applications. He is responsible for overseeing and developing interdisciplinary software processes and systems.

BUSINESS TEAM



Joey Li
Business Director - 3rd Year

Joey represents the business division and maintains its internal and external relationships. He ensures the engineering divisions have all the tools they need to design our annual race car. Besides being the business director, Joey leads the sponsor management team, which is a critical factor to the team's long term success.



Victoria Munroe
Accounting and Finance Lead - 3rd Year

Victoria manages the team's finances and effectively allocates funds to each subteam. She continuously strives to improve the team's internal accounting and financial reporting and create an effective reimbursement process. She enjoys collaborating with others and creating meaningful relationships with team members.



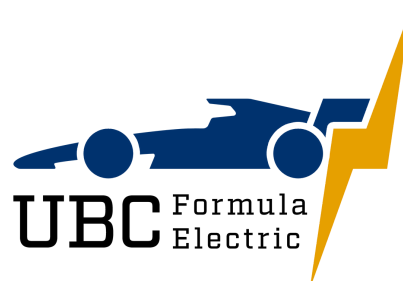
Sophie Boucher
Marketing Lead - 4th Year

Sophie manages all of the team's social media accounts and marketing ventures. She edits photos and videos to properly market the team to potential sponsors or teammates. She also runs the newsletter, keeping everyone up to date with what the team is working on. She's passionate about motorsports, allowing her to capture the essence of UBC Formula Electric and post about it in a consumable way.



Renata Lawrence
Project Management Lead - 5th Year

Renata bridges the gap between the business and engineering sides of the team, using her engineering background to communicate between the two parts. She oversees the team's internal structure and processes, making sure the sub-teams are well supported to keep the team on schedule.



Our History

UBC Formula Electric



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



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



Utilizing the 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 2-wheel drive architecture. At FSAE Michigan 2023, we placed 2nd in the efficiency event and 21st overall.

2015

2018

2022/23

2009

UBC Electric Car Club

UBC Electric Car Club (2009-2015) converted a 1972 Volkswagen Beetle to emphasize the short-range performance of electric powertrains and named 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!



2017

First Formula E Car - Luna

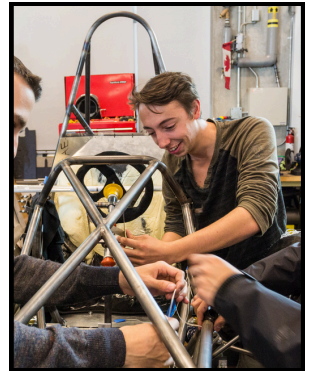
Luna was our first car specifically designed to for the Formula SAE competition. It was completely student designed from the ground up. Over the course of a year, we developed, tested, and built the electrical and mechanical systems.



2019/22

We spent the first half of our season in 2019 working on our second-gen car, Tuna. Due to the pandemic we were heavily delayed with the manufacturing of the car, however, that did not stop us from completing the car. We competed with Tuna for our first FSAE competition in 2022 placing 20th against 50 teams.

Tuna



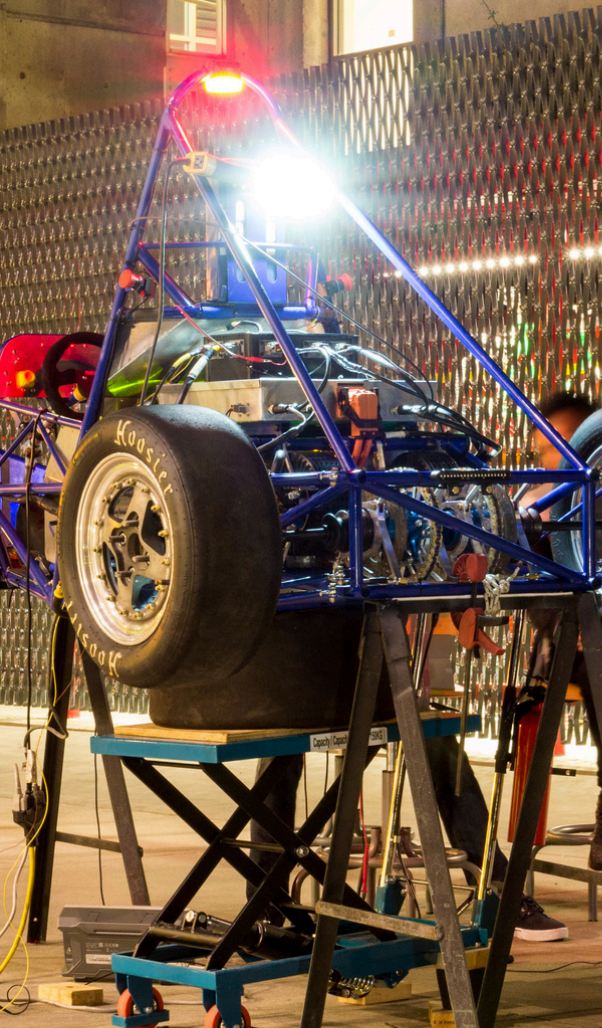
2023/24

Using our performance from 2023, we were able to make significant improvements for FSAE Michigan. This was the first year we had an aero kit! We completed all inspections and dynamic events and placed 31st overall out of 69 teams. Using lessons from 2024 and continued testing on Quadrana, we are putting together big plans for 2025.

See page 8 for our future goals & plans

Quadrana





The 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.

FSAE 2024 Michigan



In June of 2024, our team travelled to the Michigan International Speedway and competed in our third ever FSAE Competition. Armed with a ton of improvement over last season with the integration of new project management software and organizational structure, we competed with our most technically advanced car to date: Quadrana.

We made the long road trip to Michigan and began setting up for a grueling four-day event. Unlike last year, we were able to complete all of our technical inspections, which only 30% of teams are able to complete, and competed in all the dynamic events.

This was the first year we competed in all the dynamic events and we performed our first ever overtake in autocross. We also placed top 10 in the cost event and top 15 in the business presentation.

Overall, our team placed 31st out of the 69 teams from across the globe. We are pleased with the result but in no way satisfied. The competition this year was very much a learning experience, and we can't wait to come back next year and show off what we can really do!



Our Future Plans

2025 Goals

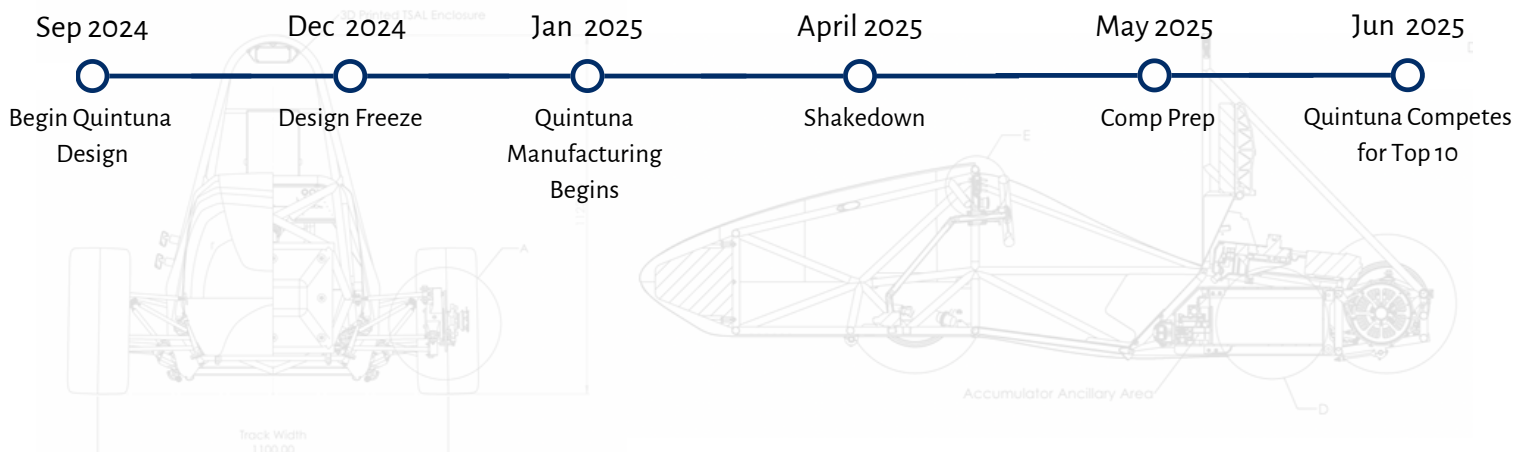
Top 10 Overall

Building off of the foundation of the 2024 season, we will design and build an entirely new vehicle architecture to compete at the top. Using our vastly improved engineering practices we expect to deliver a data-driven and fully optimized package.

Quintuna Vehicle Concept

- Optimized Aerodynamics
- Quad-Motor AWD*
- Ground-up Suspension
- All-New Refined Battery
- Advanced Torque Vectoring
- Advanced Power Optimization

Timeline



*Projects are dependent on the results of further analysis

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

	Donation \$500	Bronze \$1,000	Silver \$2,500	Gold \$5,000	Platinum \$10,000	Ruby \$15,000	Diamond \$20,000
Receive our newsletter	✓	✓	✓	✓	✓	✓	✓
Logo on car and website		✓	✓	✓	✓	✓	✓
Invitation to team networking events		✓	✓	✓	✓	✓	✓
Mentions on our social media accounts			✓	✓	✓	✓	✓
Preferred location on the car					✓	✓	✓
All of the above and your logo on our team clothing						✓	✓
Surprise Benefits!							✓
Logo on car (size in cm ²)		12	18	20	30	40	50



Current Sponsors

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