

CONCORDIA UNIVERSITY SAE AERO DESIGN 2024-2025 SPONSORSHIP PACKAGE



ABOUT SAE AERO DESIGN

Being part of the Concordia AeroDesign is an incredible opportunity for students of all disciplines to explore and experience the world of aircraft design and the manufacturing of a remote-controlled aircraft, by tying together students from various undergraduate degrees from electrical and computer engineering to aerospace and mechanical engineering. It provides future engineers the opportunity to work on a project that closely mimics what they might see in the industry later in their careers.

This project encompasses every step of the process from conceptualization to realization including the roadblocks and problems that might arise throughout the project that engineers must overcome. Ultimately, the team participates in the official SAE AeroDesign competition hosted by SAE International, along with over 60 other teams from around the world. However, please remember that the work done for the Aero Design team is strictly extracurricular with no in-class credit nor monetary remuneration.



PROJECT OVERVIEW

Our team is competing in the Regular Class category where the aircraft is tasked to carry as much payload as possible. Several constraints make the mission more challenging such as having to take off from a limited runway of 100 ft, a 750-watt limiter required for the propulsion system as well as a 180-inch maximum wingspan limit.

Rules are changed and updated every three years, making this year the team's third and last year of the design cycle. A design report and presentation equally tie in the project, which tests our engineering knowledge as well as the team's decision-making and organization.

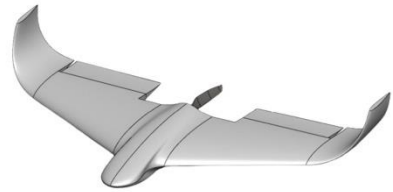
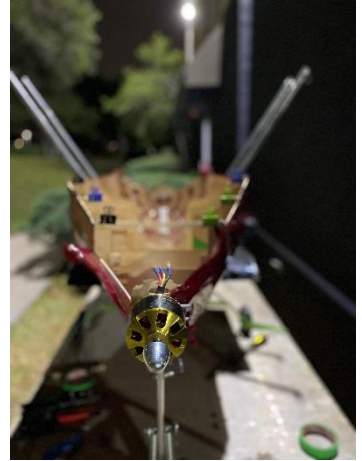


MESSAGE FROM THE COORDINATOR

At Concordia SAE Aero Design, we design and manufacture electric-powered RC aircraft from a set of rules and requirements defined by SAE International. Through this yearly competition, every member of the team gains valuable practical experience beyond their academic background through the engineering challenges we face through the design cycle. Last year, the team attended the SAE International competition in Lakeland, Florida. The hard work and dedication proved to be worth it as the team scored 3rd place overall out of 32 teams competing. As team coordinator this year, I intend to push every member of the team to develop their technical skills and soft skills through a learning, dynamic, and fun environment among the team. We aspire to put all the knowledge and experience acquired in the past to bring our aircraft to the top step of the podium this year.

Thank you for your time and consideration, as it is through the generosity of companies such as yours that we can compete and set the bar higher and higher every time.

- Jeremy Lampron, Aero Design Coordinator



WHY SPONSOR US?

Sponsoring SAE AeroDesign is a mutually beneficial arrangement for both parties involved.

While the team is partially funded by Concordia University, this project would not be possible without the generosity of our incredible sponsors, as most of our funding comes from sponsorship agreements that are sought out by the team. The sponsoring organization benefits from an increased marketing reach thanks to the SAE Aero Design team platforms. Once a sponsorship deal is reached, the Aero Design team uses social media such as LinkedIn and Instagram to announce the sponsorship. Furthermore, the team prints t-shirts with logos of all major sponsors for members to wear during the competition. In addition, the logos are printed onto the skin of our plane, giving your organization clear visibility even high in the skies.

By sponsoring our team, the sponsoring organization is encouraging the development of future engineers and other future professionals and motivating them to become both qualified engineers as well as well-rounded individuals. This project encourages creativity and passion but also gives students unforgettable experiences.



GOALS FOR 2024-2025

- Reduce the airframe's weight to increase the payload capacity of the aircraft.
- Optimize time efficiency of operations to allow for more testing time before the competition.
- 1st place overall at the next SAE Aero Design East competition (March 2025)

WORKLOAD DISTRIBUTION: SUBTEAMS

- **AERODYNAMICS:** This team is responsible for the selection of the airfoils, the sizing of the lift-creating and control surfaces as well as their respective actuators. The overall aerodynamic limits of the aircraft are equally outlined for the structural design. The stability and other flight characteristics of the aircraft are also analyzed and validated.
- **STRUCTURES:** This team is responsible for the design of the aircraft's structural components. This includes the selection of the materials, the design and validation process, the manufacturing process, and the testing process.
- **SYSTEMS:** This team is responsible for the analysis and study of thrust and electrical power as well as data acquisition. The components that fall under this section include the propeller, the electrical motor, the servos, the transmitter, the battery selection, and the wiring.

TEAM TESTEMONIALS

“Two years after starting university, I joined the SAE chapter at Concordia. The group that I joined was filled with passionate students, who strove to develop their interest and skill in the engineering profession. Their environment allowed me to pursue my passion for design in a way that permitted me to apply the knowledge I had learned from traditional schooling, as well as skills that are hard to learn elsewhere such as solving unique issues within a design process and applying CAD with other simulation software to build and verify a prototype’s performance. I have learned a lot from my time at SAE.”

-Leopold Bourque, 4th year Mechanical Engineering



“On behalf of Concordia University’s Gina Cody School of Engineering and Computer Science, it is with great pleasure that I endorse our new teams of dedicated students in SAE AeroDesign.

SAE AeroDesign is a platform that allows our undergraduate students to gain experiences that go beyond the classroom and become better engineers. Over the past years, our SAE Aero teams have made great strides in international competitions and that is in large thanks to the support from our sponsors.

We hope that you will be a part of our success story.”

-Amir Jalini, Aerospace Engineer in Residence



SPONSORSHIP LEVELS

We offer many forms of visibility and promotion to our industry partners. Sponsorship levels may be customized per a sponsor's specific needs. Donations are also equally welcome, for which tax receipts can be issued. Donations differ in that donors do not receive any marketing advantage. Our sponsors benefit from a bright and vast audience: engineering students and faculty members, both from Concordia University and many others from universities whom we meet during our international competition. We promote and mention our sponsors on social media and on the Concordia SAE website as well as on printed promotional material, from competition apparel to banners. All our industry partners are invited to our networking events to meet with the students. Finally, we are ALWAYS open for new ways to promote our supporters.

- For the duration of one year: May-April.
- Logos are sized proportionally as per the number of sponsors and their respective levels.

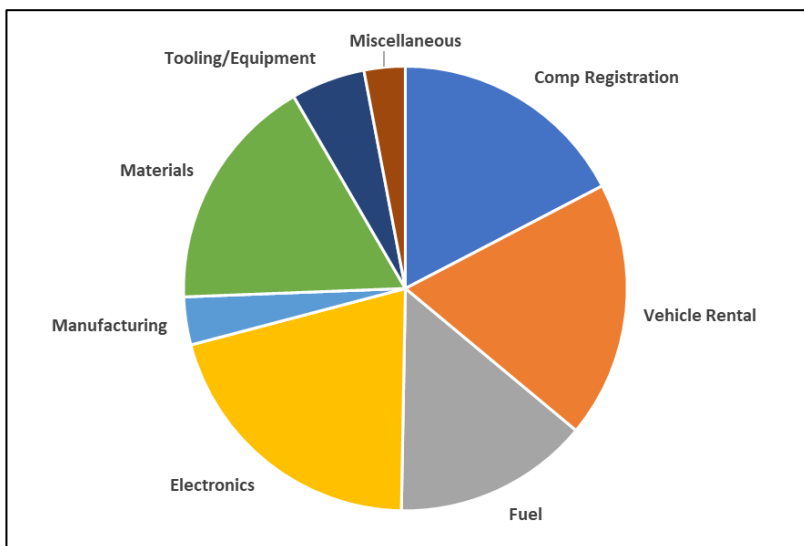
Sponsorship Levels	Logo size on team aircraft	Logo in media publications	Social media publication	Website
Platinum \$1,750+	Two Logos: Most Visible	Extra Large	✓	Logo
Gold \$1,250-1,750	Large	Large	✓	Logo
Silver \$750-1,250	Medium	Medium	✓	Logo
Bronze \$250-750	Small	Small	✓	Logo
Sponsor <\$250	Text	Text	✓	Logo



BUDGET

The team's total budget requires around 32 000\$ yearly. As seen in the figure below, the main expenses are building materials, competition expenses, and travel. The building materials for the plane include balsa wood, plywood, and aluminum. We also require electronic components such as motors, servos, batteries, and flight controllers. As for the competition, we have registration fees and team apparel with all the sponsor's logos on it. Finally, the team pays for the gas and vehicle rentals during the competition in the US.

Principal Project Expenses



AERODESIGN

2024-2025



MAIL

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