





Hello from Husker Motorsports! We are the University of Nebraska Lincoln's Formula SAE team. For the 14th year running, we are extremely excited to be developing another high performance race car. Each year we strive to achieve the fastest, most technically advanced competition car possible. Our journey is made possible by the invaluable support of sponsors like you. We strive to forge new, mutually beneficial partnerships with staples of the industry such as you on our road to success.

In 2011, Husker Motorsports had humble beginnings, starting with just five passionate members and a single dedicated faculty advisor. Since then, the team has grown to over 3 executive members and 20 subsystem leads guiding a group of 70+ general members from a wide variety of academic disciplines. We pride ourselves in providing students with unparalleled professional experience in the university atmosphere. This team builds a car from scratch each year iterating from designs and lessons learned from past cars. Each year, countless hours are spent researching, developing, manufacturing, and testing the car in the pursuit of absolute performance. We are proud to have placed 12th and 7th overall and 8th in design in the last 3 competitions we have attended. These feats have gained us national attention and attraction from top FSAE teams and companies. We strive to be a podium finishing team for the 2024 competition season.

HMS-24 will see advancements across all systems, including optimized intake and exhaust geometries as well as advanced oiling capabilities. A new damping system and innovative suspension concepts integrated with our aerodynamics package will take HMS-24 to the next level. We firmly believe that in partnership with your esteemed company, we can proudly showcase your brand on the national stage as we compete at the highest levels. We sincerely appreciate your time and consideration as we continue our relentless pursuit of excellence.

Nicholas Gauer Technical Director Husker Motorsports UNL Formula SAE



HISTORY & BACKGROUND

Formula SAE is a division of the SAE International Collegiate Design Series. The objective is to design, build, and accomplish business and engineering tasks centered around the creation of a one-person open-wheeled racecar. Teams must keep in mind the wants and needs of an amateur auto-cross racer. Formula SAE holds eight events worldwide including three in North America. The competition has numerous events, both static and dynamic, which measure the performance of the car and team. The competition gives students a unique opportunity to apply classroom knowledge into real-world scenarios. For more information on the competitions, please visit the Formula SAF website:

www.sae.org/attend/student-events

COMPETITION CATEGORIES

Business Presentation:

This event tests the team's ability to develop a business case convincing executives of a corporation that the team's design meets the needs of an amateur autocross racer. The presentation must prove that the team's design can be profitably manufactured and marketed. **(75 points)**

Design Presentation:

Team members explain and prove their understanding of engineering principles as they relate to the design and construction of the car. **(150 points)**

Cost and Manufacturing:

The team submits a report of the total costs of the car. Judges evaluate cost aspects of the effectiveness of the team's design, manufacturing, and assembly. *(100 points)*

DYNAMIC EVENTS

Acceleration:

This event tests the car's power generation and transmission on a 250 ft straight line track like a drag race.**(100 points)**

Skidpad:

This event tests the car's ability to respond to lateral acceleration. The driver tests the car by navigating two adjacent 15 meter cone circles. **(75 points)**

Autocross:

The autocross event measures the car's combined acceleration, handling, and braking on a tight cone course. Two team drivers must navigate the course successfully and quickly in order to post competitive times. *(125 points)*

Endurance & Efficiency:

This event is a 22 kilometer race challenging both the car and driver in an autocross style course. Two drivers participate for each team, each completing half of the race. The event also the measures fuel efficiency of the car. **(375 points)**





2022-2023 Competition Season

In the 2022-2023 season the team attended one event, hosted at Michigan International Speedway in Brooklyn, MI. Each of these events lasts four days and the team competes in both static and dynamic events to showcase our car and the design process. Over one hundred teams attended each of these events. One of the most exciting parts of competition is networking with other teams from around the world and the numerous corporate sponsors that attend each year.

We were very excited to place 8th in the Design competition in the internal combustion division of the May competition. This was the second time in the team's history we finished top 10 in Design. However, a small fuel leak prevented us from fully passing static technical inspection and thus competing in the dynamic events. Obviously dissapointed, the team is more motivated than ever and we expect to be able to return to high level performance. Active steps have been implemented so that we continue to improve our team's performance and depth of knowledge every year.



EVENTS:	MICHIGAN MAY 2023 PLACEMENT:	MICHIGAN JUNE 2022 PLACEMENT
Overall Placement	77 of 110	7 of 56
 STATIC EVENTS Business Presentation Design Presentation Cost Presentation DYNAMIC EVENTS 	43 8 6	38 6 19
Acceleration Skidpad Autocross Endurance Efficiency	- - - -	7 14 5 8 18



2023-2024 SEASON GOALS

Learning from both our previous successes and challenges from last year, the team has identified specific goals for the 2023-2024 season. These ideals drive our continued design: reliability, simplicity, and efficiency. Last year showed us that being able to test the car is one of the most valuable resources we have in improving our score at competitions.

- WEIGHT (LBS.) 450
- HORSEPOWER 84
- SKIDPAD (SEC.) 4.9
- ACCELERATION (SEC.) 4.2
- TOP 5 OVERALL PLACEMENT



RECRUITING OPPORTUNITIES

- Assist students with industry knowledge and skills not learned in the classrooms.
- Chances to meet and recruit experienced engineering and business students.

NATIONAL RECOGNITION

- FSAE is a world wide competition and brings in industry leaders from across the globe.
- Marketing exposure at the 2024
 Formula SAE competitions and other events attended by the team.

MARKETING EXPOSURE

- Sponsors receive advertising on our website, social media, merchandise, and name/logo placement on our race car.
- National events are covered by local, regional, and national television and print media.

OPPORTUNITY TO "GIVE BACK" TO THE ENGINEERING COMMUNITY!



SPONSORSHIP OPPORTUNITIES



The Husker Motorsports team is an exceptional experience for students. It serves as an excellent practical application of what is learned in the classroom, while also teaching highly valuable project management skills. The university of Nebraska-Lincoln partially supports our team, however, outside sponsorships and donations are critical to our continued success. Without contributions like yours, our work would not be possible. If you are interested in donating to our team, please fill out the form below and either email or mail it to us. If you have any questions, please do not hesitate to contact us.

The University of Nebraska - Lincoln is a 501(c)3 organization.

All donations are tax deductible.

To return by mail, please send to:

Husker Motorsports 900 N 16th Street W342 Nebraska Hall Lincoln, NE 68508

To Email your form or answer any questions, please contact:

Nicholas Gauer 605-321-4617 Technical Director unlformulasae@huskermotorsports.com



HUSKER SPONSORSHIP FORM

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City:	State:	_ Zip Code:
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-MONETARY DONATION

What is the amount of your donation? \$_____ Please make checks payable to UNL Husker Motorsports.

-GIFT IN KIND & COMPANY RESOURCES DONATION

What is the nature of this gift in kind?

What is the value of this gift in kind? _____



Date





Nebraska Lincoln College of Engineering

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