

University of Illinois at Urbana-Champaign

OFF-ROAD ILLINI

FALL 2023 SPONSORSHIP PACKET



WHAT'S INSIDE:

Our Program - 2

Design For Success - 5

Our Team - 3

Why Support Us? - 6

SAE Design Series - 4

More Info - 7,8

OUR PROGRAM

What exactly is Baja?

We are an interdisciplinary engineering RSO that designs, manufactures, and tests a new off-road vehicle every year to drive with at competitions. Our members learn how to effectively utilize 3D modeling software, such as PTC Creo, to model our vehicle. We also use simulation software, such as Ansys FEA, and perform process and design FMEA to check our designs and take preventive measures that inform changes to our final design. Throughout the design phase, our members obtain hands-on manufacturing experience working on the car. Members can even choose to be trained in specialized machining skills such as mill and lathe machining, and welding and water jetting. Upon completion, our vehicle is tested, and then put to the real test where it competes in international competitions. Competition events include a design presentation, a business presentation, acceleration, maneuverability, rock-climb, and endurance races.



This program helps prepare members for a career after college. The skills gained from competing on an SAE student design team are numerous and unique. These opportunities help emerging engineers develop a real-world understanding of communication, teamwork, and leadership in a professional context.

Ohio 2023

23rd of 79 Overall - **14th** in Pilot Pull - **16th** in Acceleration

OUR TEAM

The people behind the product

We are so proud of our team's diversity. We have members that come from all disciplines of engineering, and a handful from other fields as well. Each and every unique individual helps give our team the tools needed to tackle complex problems from a variety of angles. Regardless of what field, way of thinking, or continent a member is from, they become an important part of our roster and learn to take on the challenges related to engineering our offroad vehicle.

Grainger College of Engineering

Female 24%

Male 76%

Off-Road Illini

Female 31%

Male 69%



Oregon 2023

17th of 86 Overall - **4th** in Design - **8th** in Rock Crawl

SAE DESIGN SERIES

The best of the best

Baja SAE is a collegiate design series sponsored by the Society of Automotive Engineers (SAE) and Kohler in which students apply their knowledge acquired in the classroom through the design, manufacturing, and testing of a prototype vehicle. This prototype is developed around the concept of a four-wheel, single-seat, off-road recreational vehicle intended for sale to the non-professional, weekend off-road enthusiast. The vehicle is required to be safe, easily maintained, easily transported, and fun to drive with the added challenge of being limited to a stock fourteen horsepower engine from Kohler. This places an emphasis on driveline efficiency, and suspension and chassis design.

In the previous year, we rebounded from the pandemic with a massive influx of members and successfully designed, machined, and assembled one of the best performing cars in Off-Road Illini history, paving a new path to future success. Attending competitions in Wisconsin, Oregon, and Ohio, we saw how past improvements have led to simultaneous new successes and challenges, and will continue to improve and claim our spot at the top!



Oshkosh 2023

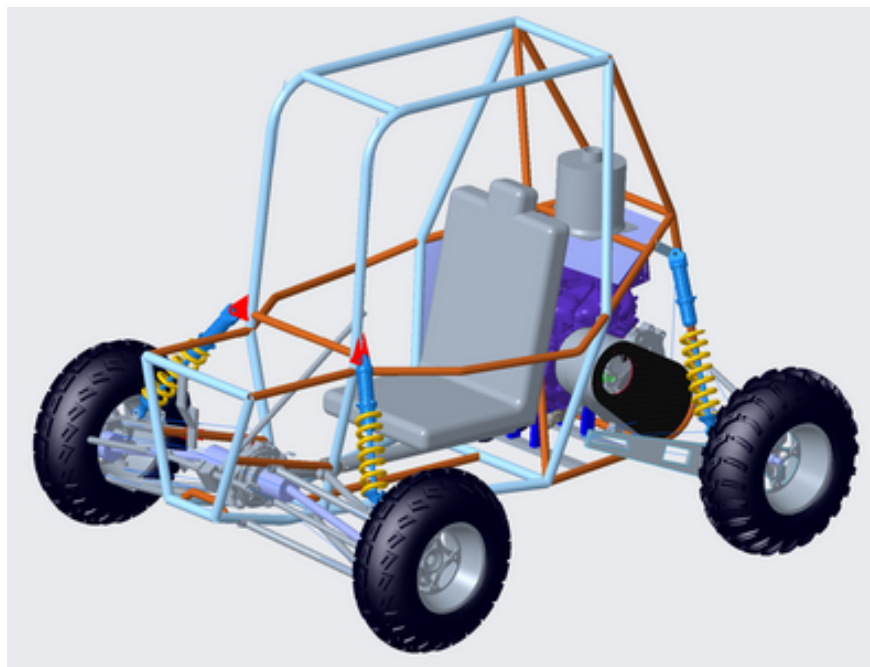
13th of 82 Overall - **7th** in Sled Pull - **8th** in Sales

DESIGN FOR SUCCESS

Improvement and Innovation

In 2022-2023, the Off-Road Illini made many adaptations from previous years' cars. Some were drastic overhauls, like the drivetrain packaging, which had to adapt to an entirely new and much bigger engine. Additionally, the rear driveshafts were changed from a loaded U-joint driveshaft to a CV axle for improved reliability. More tuning and testing was also completed to further improve our custom CVT.

Other changes were strategic adjustments based off prior experience and failures. One such change was switching from an H-Arm to a Semi-Trailing Arm in our rear suspension; issues with the manufacturing and strength of our H-arms ultimately led to the change. We had previously ran a STA in the rear on our 2019 car, Roamer, but a lot of adjustments had to be made from that original design, specifically regarding the rear upright. The rear suspension design developed into a hollow, truss STA and two toe links. For the 2023 car, we will be implementing this set up again with changes aimed towards condensing the rear packaging.



2023-2024 Season Goals
Acceleration time of less than 4.3 seconds

WHY SUPPORT BAJA SAE?

Why you should get involved

Any company supporting the University of Illinois' Baja SAE team shows great value and receives great benefits. You will have an opportunity to form relationships with students from one of the country's top mechanical engineering programs and have direct access to this talent. Our partners are always welcome to come to the shop and see our cars, and can give recruiting presentations directly to our team. Our teammates are always eager to meet sponsors and tell them more about our Baja SAE program, and will be just as excited to hear about your company's opportunities.

Baja SAE partners are companies that have the highest values. Supporting students who are working outside of class to gain professional, real-world engineering and competition experience while improving their project management, teamwork, and engineering skills is a great outreach for any company. Not many other students graduate with hands-on designing, engineering software, and manufacturing experience, so partnering with Baja SAE students shows that your company prides ambitious talent.



The Off-Road Illini are placing better and better in each competition we go to, and we wouldn't be able to get to that next level without our corporate sponsors. Our resilient drive and motivation give us that competitive edge, but as we develop and grow each year, we continue to need more sponsors. Being a partner helps our team continue to be ambitious and dream of innovative new ways to improve our car.

We thank every corporate sponsor for your thoughtful consideration. It is because of you that our team continues to get bigger and better! The Off-Road Illini Baja SAE team would not be able to thrive the way it does without our sponsors.

2023-2024 Season Goals

Increase ground clearance by 2"

CONTACT OUR LIAISONS FOR MORE INFORMATION

Prof. Mike Philpott

SAE Faculty Advisor
mphilpott@illinois.edu

Josh West

President
jjwest3@illinois.edu

Mike Ciss

Captain
mcciss2@illinois.edu

Greta Heinz

Chief Engineer
mhheinz2@illinois.edu

OTHER CONTACT INFORMATION

Website: offroadillini.mechse.illinois.edu

Email: offroadillini@gmail.com

Facebook: facebook.com/offroadillini

Instagram: instagram.com/offroadillini



2023-2024 Season Goals

Remain on track for 70% of endurance

SPONSORSHIP LEVELS

		Honorary Member	Bronze Partnership	Silver Partnership	Gold Partnership	Orange & Blue Partnership
Levels of Representation		Up to \$500	\$500-999	\$1,000-4,999	\$5,000-9,999	\$10,000 +
Representation on Team Website (Includes Link to Company Website)	Company Name					
	Company Logo					
	Company Logo Featured on Front Page					
Representation on the Car	Small Logo					
	Medium Logo					
	Large Logos on Either Side of the Car					
	Two Large Logos in Location of Sponsor's Choice					
Sponsor Newsletter Subscription						
Team Photo and Appreciation Letter						
Invitation to Speak with the Illini Motorsports Teams						
Distribution of Corporate Recruiting Materials at Team Events						
Company Name Included in All Team Publications and Event Registrations						

Logo appears on the website once the donation is received. If the donor is a current sponsor renewing their sponsorship, one additional year will be added starting at the time the new donation is received. If a 2022 sponsor chooses not to renew their sponsorship, logos will be removed from the website on January 17th, 2024.

On behalf of the
Off-Road Illini,
 thank you for
 your support!

