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.
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. We are also incredibly proud of our women of Baja, who make up just under half of our leadership team.

Grainger College of Engineering
Female 24%  Male 76%

Off-Road Illini
Female 33%  Male 66%
SAE DESIGN SERIES
The best of the best

Baja SAE is a collegiate design series sponsored by the Society of Automotive Engineers (SAE) and Briggs & Stratton 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 ten horsepower engine from Briggs & Stratton. This places an emphasis on driveline efficiency, and suspension and chassis design.

In previous years, we had to contend with restrictions on our shop access as well as how much we could compete. However, after adapting to the uncertainty and the environment that replaced what we were comfortable with, we are finally returning to a little more normalcy. Now that we are returning to compete in competitions, we will be able to learn more about how the changes we made from last year’s car impact our car’s performance off the test track. More competitions available means that we get more opportunities to claim our spot at the top and see how we have improved!
DESIGN FOR SUCCESS

Our success in competing

The goal of the competition is to give students an experience emulating a professional business and engineering environment. Our members learn valuable skills such as working effectively in a team, creating and meeting deadlines, and designing a product with quality and efficiency in mind. A prototype of the car will be modeled and thoroughly checked by analysis software before fabrication begins. Baja SAE competitions place a large emphasis on the maximization of the performance and minimization of cost in both the design and implementation of a vehicle. This not only teaches students how to build a strong and reliable vehicle, but it helps them gain experience solving problems in a real-world engineering setting.

This past year, our team competed in two competitions. Our car, Beckley, was our second four-wheel drive car with a smaller frame compared to our previous cars. Although lighter than our first four-wheel drive car, Beckley was still significantly heavier than our two-wheel drive cars. Beckley was great for maneuverability but ran into problems with its new carbon fiber tie rods, the CVT, and its axially loaded driveshafts. After having break issues in Tennessee, Beckley did not pass the brake check and could not compete in the dynamic events. Despite these challenges, Beckley returned and performed well in the Rochester competition.

Baja Tennessee Tech:
59/93 Overall
7th - Design Event

Baja Rochester:
54/88 Overall
20th - Design Event
22nd - Maneuverability
WHY SUPPORT BAJA SAE?
Why you should get involved

Any company supporting the University of Illinois’ Baja SAE team shows amazing value and receives several 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 our 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.
CONTACT OUR LIAISONS FOR MORE INFORMATION

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### Sponsorship Levels

<table>
<thead>
<tr>
<th>Levels of Representation</th>
<th>Honorary Member</th>
<th>Bronze Partnership</th>
<th>Silver Partnership</th>
<th>Gold Partnership</th>
<th>Orange &amp; Blue Partnership</th>
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<tbody>
<tr>
<td>Representation on Team Website (Includes Link to Company Website)</td>
<td>Company Name</td>
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<td>$1,000-4,999</td>
<td>$5,000-9,999</td>
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<td>Company Logo</td>
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<td>Company Logo Featured on Front Page</td>
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<td>Two Large Logos in Location of Sponsor's Choice</td>
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<td>Team Photo and Appreciation Letter</td>
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*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 17, 2023.

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