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The Ohio State University Baja SAE Team is comprised of a diverse group of undergraduate students from various degree fields and levels of education. The student project is open to anyone interested in being part of a team dedicated to creating a strong, lightweight, and competitive off-road racing vehicle. Past and current members have included students pursuing degrees in mechanical, industrial, aerospace and electrical engineering, as well as political science and business. Because there are so many facets to the competition, the diversity of our students is truly an asset.

Membership usually ranges between twenty and thirty students with approximately fifteen highly motivated and dedicated team members who often put in upwards of forty hours a week. In an academic year, the team will design and build at least one completely new vehicle to race at competition. A new vehicle takes anywhere from 2500 to 4000 hours of work to complete including design and fabrication.

As a part of the OSU Baja SAE team, students are given an opportunity to apply the knowledge they have learned in the classroom to a real world situation. Also, students practice business and manufacturing processes that can’t be taught effectively in a classroom. They are introduced to the challenges associated with launching a product in today’s commercial market, while experiencing hands-on fabrication processes. Some of these skills include the use of manual mills, a CNC mill, lathes, drill presses, TIG welders, hand tools, and construction of composite materials. In addition, members are exposed to the financial, promotional, and social aspects associated with running a business. Most importantly, however, is the emphasis placed on the development of an effective, cohesive and efficient team.
What We Do

The Ohio State University Baja SAE Team takes on an enormous challenge each and every year. Participating in the Society of Automotive Engineer’s Baja SAE Design Series, student teams from around the world design and build an off-road vehicle that will survive the severe punishment of rough terrain while conforming to various competition standards. The purpose of the competition is to provide SAE student members with a challenging project that involves the planning, manufacturing, and business tasks required to introduce a new product to the consumer market. Over 100 teams compete against one another to have their design accepted for manufacture by a fictitious firm as a full scale production recreational vehicle. Students must function together to design, build, test, promote, and enter their vehicle into competition. In addition, they manage a budget to finance the entire project.

One of the true challenges of the project, however, is being competitive in a field consisting of schools from across the nation and around the world. A major premise is the use of a stock Briggs and Stratton 10 h.p. engine to power the vehicle. Subsequently, the efficient design of drivetrain, suspension, and chassis is stressed so that performance is maximized. The entire project is documented with cost and design reports.

The combined scored events between the competitions are:

Static Events
- Design Report
- Cost Report
- Sales Presentation
- Mechanical Design

Dynamic Events
- Acceleration
- Top Speed
- Slide Pull
- Maneuverability
- Rock Crawl
- Hill Climb
- Mud Bog

Main Event
- Four Hour Wheel-to-Wheel Endurance Race
This past season The Baja Team ran a car originally built in 2011-2012, with major modifications for the 2012-2013 academic year. The knuckles were changed to a welded sheet steel designed, as opposed to billet aluminum. The brake system was revised to include a bias bar, in order to have adjustable brakes for rear or forward bias. The gearbox was completely overhauled to remove a reverse gear, to reduce weight and simplify overall construction. With the new gearbox design, a new CVT design was required. A new CVT cover was created out of fiberglass and aluminum, which also worked to cut weight. The shocks on the vehicle were custom damped by Ohlins, and were designed to be soft in order to increase the amount of contact with the ground over bumps. The Baja Team is currently designing a very well-rounded car for 2013-2014 season. We are eager to begin a new season and to challenge ourselves to build a top ten finishing vehicle for this year’s competitions. Work on the new vehicle began immediately at the conclusion of the 2012-2013 season, in order to address the issues that were fresh in our minds.

**Goals for the 2013-14 Season**

- Reduce weight of the car to be approximately four hundred pounds.
- Body panels material testing on plastics, metals, and composites.
- Collect more test data on tires and CVT tuning in all track conditions.
- Increase the difficulty of our test track and add maneuverability section.

Our goals for the 2013-2014 season are not only ambitious, but very accomplishable. An enormous amount of progress was made in the past season by designing every part of the vehicle with performance in mind. By designing each future vehicle through SolidWorks, a 3-D mechanical design software, the team is able to design a cost effective vehicle ready for production in a competitive market.

In the 2013-14 season, the team looks forward to incorporating the success of the past with a consistent drive for creative improvements. Already, a dynamometer has been constructed and implemented to test and tune each engine, allowing performance to be maximized. Improvements also include a finished practice track putting the Ohio State Baja team ahead of most other teams, just by having our own track. With these recent improvements the teams has more potential than most of the teams across the world. With this potential, goals have been set higher than before and we would like nothing more than your company to help us fulfill our potential and secure this year’s podium finish.
By their nature, motorsports programs of any level are inherently expensive to operate and compete. For that reason, teams in all racing leagues, including Baja SAE, rely heavily on businesses and corporations to provide the necessary monetary, service and product support.

Sponsorship helps our team tremendously, the benefits are mutual. First and foremost, any monetary donation to our team, which is part of a state funded university, is tax deductible.

Also, as a team sponsor, your company name and logo goes hand in hand with our own at all of the events in which we participate. These include numerous university and public appearances, competition, and exposure to everyone who visits our website (currently under construction) or Facebook page. Lastly, your support demonstrates an explicit interest in the education of Ohio State students who will be the future employees and leaders in your industry.

For contributions over $1000, sponsors will receive a plaque from the OSU Baja SAE Team. The following are benefits for all sponsor levels:

- Once built, requests are welcome to display vehicles at company locations and functions.
- Vehicles take part in various parades, campus and community events, displaying all sponsor logos and names
- Recruiting access to team members.
- Tours of The OSU Center for Automotive Research (CAR).
- Invitations to Competitions and Testing Sessions.
- Name and link to company website placed on the OSU Baja website, with prominence in accordance to the level of sponsorship.
- Name added to all promotional materials.

Levels of Sponsorship

For listed donations, sponsors will receive the following:

$ 2000 TITLE SPONSOR
3” Company Logo/Name placed on Front, Left Side, and Right Side body panels of the car. This sticker will be the largest on the vehicle.

$ 1000 GOLD SPONSOR
2” Company Logo/Name placed on Left and Right Side body panels.

$ 500 SILVER SPONSOR
1.5” Company Logo/Name placed on Left and Right Side body panels.

$ 200 BRONZE SPONSOR
1” Company Logo/Name placed on Left and Right Side body panels.
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