

Tuks Baja

BAJA RACING

2019



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering,
Built Environment and
Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en
Inligtingtegnologie / Lefapha la Boetšenere,
Tikologo ya Kago le Theknolotši ya Tshedimošo

WHAT IS BAJA

Baja SAE is an intercollegiate design competition run by the Society of Automotive Engineers (SAE).

Universities all over the world enter teams of students who compete against each other. These teams are each required to design, manufacture and build a rugged, small, single-seat off-road vehicle that has to survive the severe punishment of rough terrain, steep rocky hills, and mud.

The SAE competition challenges the students to not only build a vehicle that is capable of winning the competition, but also one that is feasible for mass production purposes. This incorporates both the disciplines of racing and performance design with industrial design.



This competition also gives students the first-hand challenge of pursuing their passion while managing real-life demands and priorities. As in real work situations, the future engineers are required to work together as a team to discover and resolve technical challenges in design, testing, and manufacturing, as well as business matters.

THE TEAM



The University of Pretoria TuksBaja SAE team consists of a diverse range of enthusiastic students who are making the most of their university career. The team is made up of members from different engineering disciplines, ranging from eager first years to experienced final years and post graduates. This year, the team has a record number of successful female engineers.

At TuksBaja, there is a strong emphasis on mentorship, as well as the passing on of skills. We adopt an attitude of teaching and learning, with the more experienced members teaching the first years and Baja newcomers.

All members of the team devote many hours between their academic studies in order to design, manufacture, assemble and maintain the vehicles. TuksBaja enables students to apply the theoretical knowledge learned in class to hands-on, practical experience in solving real engineering problems.



THE CARS

Car 10 is TuksBaja's newest car. Designed and manufactured in 2018 by the student engineers, this car boasts innovative design, high performance and a edgy yet sleek design. The materials, parts and manufacturing of Car 10 was generously sponsored by Paramount Advanced Technologies.



Car 10



Car 70

Car 70 is TuksBaja's second newest car. Designed and manufactured in 2017 by the team members, this car has always been reliable, easy to handle and incredible fun to drive.

Car 2 is TuksBaja's oldest car. Designed and manufactured in 2015, this car is known for its sturdiness and high performance. In 2018, this car was given to the first year team members. They disassembled the car, learning about the design of all the components, as well as how to repair and maintain these components.



Car 2

Car Y

Car Y is TuksBaja's new competition car. Currently being designed and manufactured, this car will be taken to America in 2020 to compete internationally against other universities.

SA COMPETITION

In October 2018, TuksBaja competed in the South African Baja SAE Competition. The team entered all three of its cars. All three cars competed in various categories such as manoeuvrability, hill climb, speed tests, design presentations, and a 4 hour long endurance race. The cars all performed well in the various categories.

The whole team was at the event, helping out with challenges faced, and performing quick repairs on things that broke or came undone during the day.



Results

Category	Car 10	Car 70	Car 2
Design	1 st Place	2 nd Place	4 th Place
Endurance	4 th Place	3 rd Place	5 th Place
Overall	4 th Place	3 rd Place	5 th Place

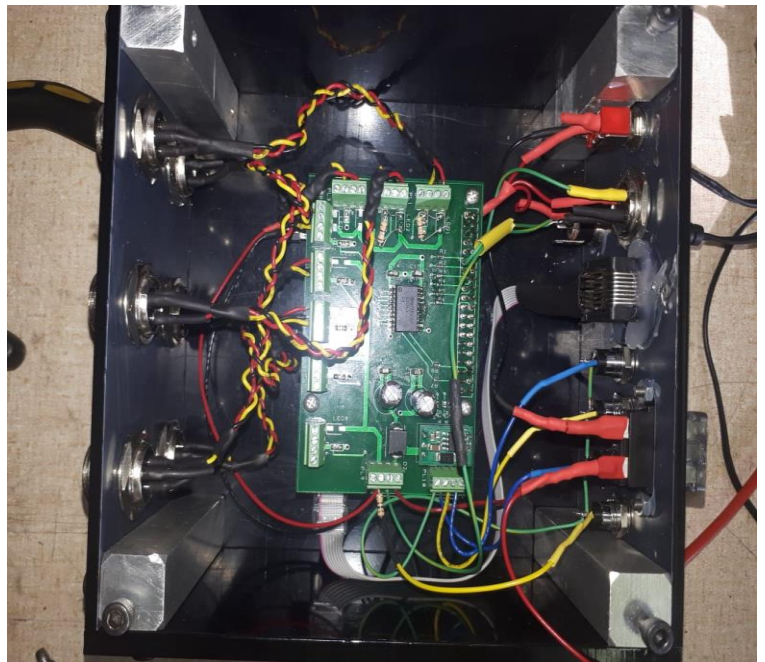
WHY SPONSOR TuksBaja

TuksBaja strives to be a team that can compete professionally not only locally, but also on an international level. In order to continue successfully maintaining and improving the current cars, as well as designing, manufacturing, building new cars, TuksBaja requires the support of generous sponsors.

Sponsoring TuksBaja:

- ❖ Puts the name of your company in the **spotlight for future engineers**
- ❖ Gives your company the opportunity to **advertise** on the TuksBaja **social media pages**
- ❖ **Provides exposure** at all race events, including track days, the annual South African competition and the annual international Baja SAE Competition
- ❖ **Promotes your company** as one that is committed to supporting innovation, furthering education, and enhancing student design teams

By supporting us, your company is helping to mould a new generation of engineers with excellent technical skills and a solid base for solving real engineering problems.



WHAT WE NEED

Sponsorships to TuksBaja may include monetary donations towards purchasing materials and parts, material donations, the sale of parts at a discounted rate and any other support.

TuksBaja specifically needs:

- **Tools** for student to use when working on the cars
- **Materials** for use in manufacturing parts of our new competition car
- **Off-the-shelf components** such as bearings, rod-ends, and oil seals
- **Money** to assist with covering expenses such as petrol, engine oil, hydraulic fluid and brake fluid
- **Brakes and brake pads** for all 3 current cars as well as the new competition car
- **Stickers** to rebrand the body panels on the cars with **your logo**.
- **Team T-shirts** for use at all events to **promote your** company.
- **Gazebos** for race events and track days to promote your company.
- **Stickers** for the car body panels with **your logo** on them

Any form of sponsorship or donation towards TuksBaja would be greatly appreciated!

Be a part of building the future by aiding and inspiring the student engineers of today!



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TuksBaja



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