

SAN DIEGO STATE UNIVERSITY: 2018 SPONSORS

# AZTEC BAJA

*Built To Win!*



## ABOUT AZTEC BAJA

The primary goal of SDSU Baja SAE is to prepare students for their careers by increasing their knowledge of engineering, building leadership and management skills, as well as connecting them with future employers, with club graduates working at Solar Turbines, Northrop Grumman, UTC Aerospace, NASA JPL, & Tesla. We do this by giving students the opportunity to move beyond the confines of the classroom and into the freedom of real life engineering. The infrastructure of the club is set up to resemble a company, where system leads are selected to manage different projects on the vehicle. This subdivides the team into Chassis, Brakes, Electrical, Suspension, Aerodynamics, and Drive Train teams, where almost everything on the vehicle is designed and manufactured in house. An important component of this competition is for students to experience how every decision affects the engineering process. Students have to design and build virtually every part on the vehicle to work in unison, meet the weight and design goals, and not sacrifice the safety of the drivers, **while meeting scheduling deadlines and budgets.**

## ABOUT THE BAJA SAE DESIGN SERIES

Every year, hundreds of collegiate design teams from across the world compete in the Society of Automotive Engineers (SAE) Baja Series competitions. Each team must design, fabricate, and race a single seat off-road vehicle. All vehicles are restricted to using a 10 horsepower Briggs & Stratton motor and must conform to a 115-page rule book. Thus, the focus of the competition is on the chassis & suspension design as well as drivetrain efficiency. The dynamic portion of the competition consists of well know events such as a hill climb, a maneuverability course, a rock crawl, and a four-hour endurance race, which test the vehicles' agility, while still being durable enough to handle the rough terrain. The static portion of the competition consists of 3 events, judged by experts from the local area of competition; Sales, Cost, and Design. These events test the students' quality of engineering in the final vehicle design, making sure the engineering cycle was followed, with verification and validation of design requirements in mind.

### 2018 CLUB GOALS

- Compete in all 3 2018 events
- Data acquisition to validate system designs
- Purchase exclusive club trailer
- Company outreach/community presence
- Repeatable club structure to ensure skills are passed down.
- Refine gearbox to create smaller driveline packaging
- Redesign 2017 custom steering rack
- Improve vehicle turning radius by adjusting front suspension geometry
- Simplify rear suspension from 5 link to 3 link for easier adjustment during competition

2017



2016



2015



2015



2014



2013



# Sponsorship Benefits

Aztec Baja produces the front line of college graduate engineers. Every graduate of the club has had a job secured in the Mechanical Engineering field before leaving SDSU. There is also a 90% internship rate with returning club members. By affiliating with Aztec Baja, sponsors have a direct access to successful students who already have real world, hands on experience. On top of that, Aztec Baja is a great form of networking for companies to reach their target markets. Our vehicles have been featured in school media, The SAE Momentum Magazine, and other forms of school advertising outside of San Diego. Coming off of an impressive 2017 season, we are looking for your help to make this our most successful season yet!

**Contributions can consist of monetary, product, or materials. All sponsors will receive a company logo on the car, as well as a company link featured on our website. (all tiers are negotiable):**

## \$ 100-499 BRONZE SPONSOR

### \$ 500-999 SILVER SPONSOR

- Company will be featured on sponsorship T-shirts.

## \$ 1000-4999 GOLD SPONSOR

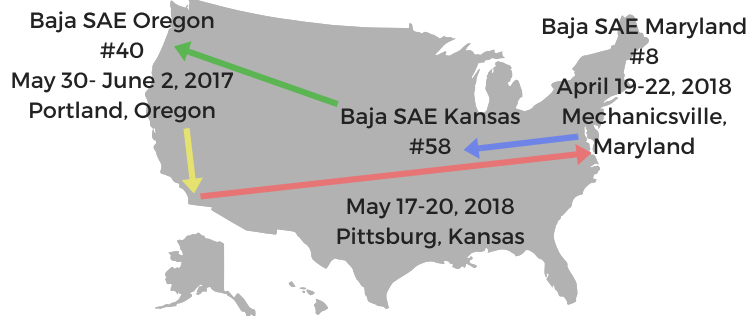
- Company will be featured on sponsorship T-shirts.
- Will be presented with a thank you plaque at the end of the year.

## \$ 5000-10000 TITLE SPONSOR

- Will be listed as main sponsor at competitions.
- Company will be featured on sponsorship T-shirts.
- Will be presented with a thank you plaque at the end of the year.



## 2018 COMPETITIONS



## 2018 BUDGET BREAKDOWN

### Projected Travel Cost: \$18,500-\$22,400

Destination:	Date:	Miles:	Travel Time:	Expenses:
Maryland:	4/19-4/22	2,700 miles	38 Hours	\$4,400-\$5,200
Kansas:	5/17-5/20	1,200 miles	18 Hours	\$4,300-\$5,100
Oregon:	5/30-6/2	1,900 miles	28 Hours	\$5,550-\$6,350
San Diego:	----	1,100 miles	17 Hours	
Total:	----	6,900 miles	101 Hours	\$14,250-\$16,650

Cost of Fuel from averaged Gas Prices and MPG:

Truck & Trailer:	\$2,000-\$2,750
Car:	\$1,250-\$2,000

Hotel cost while traveling- 4 nights with 2 rooms: \$1,000

### Build Cost: \$10,000

Material for build:	\$1,500-\$2,000	Fasteners/misc:	\$300
Engine:	\$700	Safety Equipment:	\$500
Drivetrain:	\$3,000	Brakes:	\$1000
Steering Rack:	\$1,500	Tooling:	\$1000

### Data Acquisition: \$1,750

National Instruments Hardware:	\$1,000
Sensors and Gauges:	\$750

### Trailer Cost: \$9,000-\$13,000

Initial Trailer purchase:	\$4,000-\$6,000
Renovation Cost:	\$3,000-\$4,000
Outfitting trailer for competition:	\$2,000-\$3,000

## Contact & Tax Information

Tax Deduction Information:

IRS Class# 501 (c)(3)

Tax ID 25-1494402



@sdsbaja



@aztecbaja\_sdsu

For more information, please visit our website, <http://www.aztecbaja.com>, or for questions regarding direct deposit into the SDSU Baja SAE accounts, or any other questions please contact:

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