BLUE JAY RACING
Johns Hopkins University
Blue Jay Racing is the undergraduate Baja SAE team at Johns Hopkins University. Every year, we design, build, and race a custom, single-seat, off-road vehicle against more than 200 teams from around the world.

For 19 years, team members have been developing real-world skills by applying classroom theories to design and manufacturing challenges while building a car within budget, safety, and design requirements.
Meet The Team

Lance Phillips
Captain

Ben Lehrer
CFO

Peter Klopp
Drivetrain Lead

Tyler Stanley
Frame Lead

Nina Tedeschi
Controls Lead

Theo DeGuzman
Suspension Lead

Blue Jay Racing is made up of 25 members and 35 active alumni. Our team is comprised of solely undergraduate members. New members learn to operate a lathe and mill, weld, and design components on the car regardless of their experience before they join the team.
Our Season

June: Begin Design
July: Preliminary Design Review
August: Design Freeze

September & October:
New Member Recruitment & Training
18XT Testing and Validation

November & December:
Begin 18XT Manufacturing

January: Intersession
All hands on deck! Without full-time classes, we spend most of the month machining a majority of the parts.

February: Final Fabrication
Machine back-up parts and complete post-treatment, as necessary.

March: 19XT Testing and Driver Training!
With our competition-ready vehicle, we begin tuning and data collection.

April: Compete!
May: Compete!
June: Compete!
Competition

SAE International Collegiate Design Series – Baja

A design competition held across the United States, along with races in Brazil, India, South Korea, and South Africa, bring together 100 teams from around the world. Over 1500 students descend upon a town for 4 days of static and dynamic events.

The first two days of competition consist of Static Events, as well as safety checks and rules conformity, focused on the Cost Report, Sales Presentation, and Design Presentation. For Sales presentation, teams pitch their cars to a group of mock-investors for hypothetical mass production. Teams also present their designs to a panel of professional engineers who judge the depth and quality of the final designs of the car.

The third day of competition focuses on a series of dynamic events by time trial. Teams have two attempts at acceleration, maneuverability, and a combination of two of hill climb, sled pull, suspension and traction, and rock crawl. These events are designed to test the agility and robustness of the vehicles.

The competition culminates on the fourth and final day with a four hour Endurance Race that puts cars, drivers, and teams to the test. All 100 teams race together on a single obstacle-strewn track built to test the design, fabrication, and durability of the cars.

Day 1:
We’re here!
Engine Check
Sales Presentation

Day 2:
Tech Inspection
Cost Event
Design Presentation

Day 3:
Dynamic Day
Acceleration
Suspension and Traction
Maneuverability
Hill Climb

Day 4:
Four-Hour Endurance Race
Past results

2022
Custom 4WD System
Tennessee
- 1\textsuperscript{st} Design
- Completed Suspension and Traction Course
Rochester
- 2\textsuperscript{nd} Design
- 24\textsuperscript{th} Overall

2021
Custom 4WD System
Knowledge Event
- 11\textsuperscript{th} Overall
- 4\textsuperscript{th} Sales
- 17\textsuperscript{th} Cost Event
Validation Event
- 30\textsuperscript{th} Overall
- 17\textsuperscript{th} Maneuverability

2020
1\textsuperscript{st} 4WD Vehicle
- Data acquisition system implemented on 2019 and 2020 vehicles
- 15+ hours of off-road testing completed
Sponsorship

Blue Jay Racing relies on the generous support of our sponsors to build a successful car. Our sponsors give us the means or opportunity for machine time, parts, machining, post-treatment, and in some cases machine parts for us with machines we do not have access to.

Our sponsors allow us to be as creative as we can each be as we design our parts by giving us the capabilities to machine parts in ways we otherwise would not be able to.

Improving Education and Experience of Future Engineers

The education and experience of Baja has a large effect on the student’s future engineering career. By investing in their education now, your company will have access to experienced potential new hires when members enter the workforce.

Community Support

Supporting the community around your business not only makes your company look good and gets your name out, but it also brings your company closer to customers. Showcasing your company’s role in its community at a national competition broadens your customer base now and in the future.

As well as

Tax Deduction – we are a 501(c) organization

Recruiting visibility on campus

National visibility at competition through logo placement
Levels

**PLATINUM**
$5,000+
- Tour of Hopkins Baja facilities
- Access to JHU Engineering Career Fair

**GOLD**
up to $5,000
- Company name and logo on car’s firewall
- Access to team Resume Booklet

**SILVER**
up to $1,500
- Company logo on team apparel
- Company name and logo on car (medium)

**BRONZE**
up to $500
- Company name on car (small)
- Company profile on social media

**COPPER**
up to $250
- Company name on website
- Recognition on all presentations
We would like to thank all past and present sponsors. Their continued support and generous contributions make the continuation and success of Blue Jay Racing possible.

www.baja.jhu.edu

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