



# RACERS IITJ

INDIAN INSTITUTE OF TECHNOLOGY JODHPUR



## MARKETING BROCHURE

# ACHIEVEMENTS

Racers IITJ has achieved many milestones since its inception in 2012. Each year team learns from experience of the previous year and build upon knowledge to develop faster, safer and more reliable vehicles.

## 2012

Successfully fabricated first BAJA vehicle  
Participated in the BAJA SAE competition for the first time

## 2013

Participated in Efficycle 2013  
Selected among 120 of total 370 teams in virtual round.  
Fabricated vehicle : Secured 80th rank at the main site

## 2014

Revisited the Efficycle competition  
Selected in Virtual round at New Delhi where we were amongst the top 100 teams out of around 380 teams  
Fabricated vehicle Secured 31st rank at main site

## 2015

Participated in BAJA SAE 2015  
Ranked 13th in Virtual round presentation all over India, 1st in Rajasthan and top among participating IITs  
Secured 63rd rank as a first-comer among the 150 teams, at the main competition

## 2016

Revisited BAJA SAE competition  
Successfully completed the brake test and technical evaluation in the first attempt  
Amongst top 30 in acceleration test  
Secured 12th rank in Engineering Design



# OUR TEAM

RACERS IITJ is a student-run team that designs, builds, and tests vehicles every year. Founded in 2012, they are a bunch of automobile enthusiasts, comprising of undergraduates from all four years of IIT Jodhpur.

The team is structured in a way that each member gets a chance to gain hands-on experience in all fields. While having a small team does create challenges, it also opens new avenues for each member to learn and gain valuable experience.



# IIT JODHPUR

Indian Institute of Technology Jodhpur is one of the premier engineering institutes of India located in Jodhpur, Rajasthan. It was established in 2008 with the vision of promoting technology and preparing the young and brilliant minds of the country to tackle the technological challenges of the nation. Since its inception, IIT Jodhpur has excelled in its research and industry-academia joint ventures. Through the Industry Immersion Programme, the institute has collaborated with many giants of the engineering field like Tata Motors, L&T, TVSM, Mahindra & Mahindra, Tata Power to name a few.



# ABOUT BAJA SAE

The BAJA SAE competition requires the students to design, fabricate and validate a single seat prototype all-terrain vehicle. The vehicle and the team take part in a series of events that tests the vehicle to its limits.

The agility and ability of the vehicle in terms of its speed, acceleration, stability (jumping/landing) and manoeuvrability characteristics and finally its capacity to endure a strenuous durability test are some of the key parameters taken into consideration.

The initial phase of the competition involves going through a virtual event which takes into consideration:

- Design of the vehicle
- The project plan
- Knowledge of rulebook

The evaluation process in the main event consists of extensive static and dynamic evaluations which will test the vehicle's design, quality of manufacturing and driver's skills.

The static evaluation aims at judging the team's extent of design, cost effectiveness and sales strategy. During the dynamic tests each of the car's sub-systems undergoes rigorous testing. Final frontier is the gruelling endurance race where the drivers and their vehicles are pushed to their limits to cross the finish line and emerge victorious.

BAJA is an international event organised in 5 countries

BAJA SAE India

BAJA SAE South Africa

BAJA SAE Korea

BAJA SAE USA

BAJA SAE Brazil



# TYPES OF SPONSORSHIP



RAW MATERIALS



LOGISTICS



TRAVEL PARTNER



OFFICE SUPPLIES

TOOLS AND SAFETY  
EQUIPMENT

PRINT AND MEDIA



APPARELS



FOOD AND BEVERAGES

# SPONSORSHIP

Following is the list of sponsorship tags along with the respective benefits a company can earn by associating with us.

	TITLE 1.5 LAKHS+	PLATINUM 1 LAKH+	GOLD 75 THOUSAND+	SILVER 50 THOUSAND+	ASSOCIATE 20 THOUSAND+
TITLE NAME	✓				
LOGO ON VEHICLE	✓	✓	✓	✓	✓
LOGO ON TEAM APPAREL	✓	✓	✓	✓	
RECOMENDATION DURING MEDIA COVERAGE	✓	✓			
PRINT MEDIA (NEWSPAPER, AUTO MAGAZINES)	✓	✓	✓	✓	
RECOGNISATION DURING EXHIBITORY EVENTS LIKE TECH EXPO	✓	✓	✓	✓	✓

## T-SHIRT



## BAJA CAR





# ADOPT A PART

To sponsor the team you can either help us financially or you can sponsor a component of our car allowing you to enjoy the benefits of a sponsor and associate with us. Donations for any specific part can also be made. By doing this you become part of a specific sponsorship category depending on the value of the part/product you are 'adopting'.

Each donation will get 150% tax exemption.



TYRES



SUSPENSION SHOCKERS



CVT



ENGINE



GEARBOX



ACCESSORIES



WHEEL BRAKES



WHEEL RIMS



DRIVER SAFETY  
GEAR



TOOL SUPPLIES



RAW MATERIALS





# TECHNICAL SPECIFICATIONS



## FRAME



In order to design a lightweight, compact and a strong frame that can keep the driver safe during the harsh environment of the course our Design & FEA has made the chassis lighter and stronger than ever.

1. AISI 1018 for tubular frame
2. TIG & MIG welding for higher strength of joints
3. Jigs table and Fixtures for dimensional accuracy
4. Triangulated structure for improved torsional stiffness

## TRANSMISSION



Every vehicle's heart and soul lies in its power-train assembly. This year's improved transmission system has given our buggy a better acceleration in a lighter package.

1. Custom made gearbox with required gear reduction along with optimum weight and size
2. Carefully engineered compact powertrain assembly with low center of gravity that improves vehicle stability
3. CVT transmission with variable gear reduction as per torque required by buggy



## BRAKING



Braking is a vital system in any vehicle and it requires perfection. Design improvements in this year's braking system ensures vehicle's and driver's safety and performance.

1. Use of Tandem master-cylinder, two-piston floating calipers, OEM brake pipes
2. Custom design brake discs and pedal assembly
3. Inboard brake assembly at rear
4. Braking assembly in accordance with ergonomics consideration of the vehicle

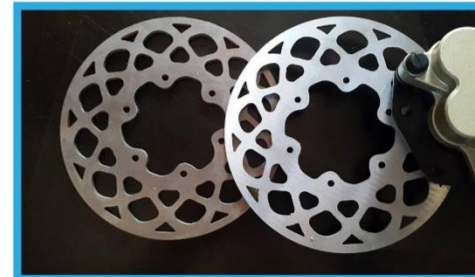


## SUSPENSION & STEERING



The performance of an off-roader lies in an efficient suspension and steering system. This year's improved geometry allows for an adjustable ride height and can sustain high bumps and pits upto 1 foot, yet is 27% lighter than last year's system.

1. Custom made A-arm Double wishbone (front) and H-arm with single link(rear)
2. Custom designed rack and pinion system
3. CNC machined aluminium knuckles
4. Customised racecar style collapsible steering wheel





# BENEFITS OF ASSOCIATION WITH US



## MASS MARKET APPEAL

- Association with us gives you a mass market appeal to potential consumers of around 250 college teams (over 6000 students) of BAJA SAE India
- Major organizers like Mahindra, Ansys, ARAI, etc. along with media coverage of major TV and newspapers on a national level



## MEDIA COVERAGE

- Electronic and social media coverage for your company and on our Facebook page having 2000+ likes
- It will be a part of major events and symposia such as Auto-Expo
- Display of our car (with your logo) at corporate events



## ANNUAL FEST

- Our annual fest IGNUS accommodates 6000 students every year from all over the country and many famous personalities. Our vehicle with the sponsor decals will be presented in our tech-expo for all days of the fest
- SAE BAJA is being incorporated into the academic curriculum. This provides an opportunity for your company to conduct workshops in the college premises

## PROMOTIONAL EVENTS

Our car will be presented at various events throughout the year which will give large scale media coverage to our car and will make your company stand out



## TAX BENEFITS

Income tax rebate of 25% for research purposes would be availed (Section 35, Income Tax Act)



# TEAM MEMBERS



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BRAKING HEAD



**SHARAN SAARSAR**  
TRANSMISSION HEAD

## MEMBERS:

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