Hello Future Teammate,

On behalf of all of Triton Racing at UC San Diego, I would like to thank you for considering a partnership with us. Your support will allow our members to design and build an even more advanced vehicle in 2016 while also allowing our students to develop their skills and learn new ones in preparation for a successful career.

Through the collaboration of students, advisors, and alumni, Triton Racing builds a new car each year from scratch to compete in international competition with hundreds of college students. Our multi-disciplinary team enables students to gain real-world experience by working on a project that uniquely combines design, manufacturing, testing, marketing, research, and management.

Our team has significantly grown to become a top competitor and we continue to push ourselves to do even better each year. But the team would be nowhere without the generous support of our sponsors and we truly appreciate those that have helped us along the way.

Thank you once again, and we here at Triton Racing look forward to teaming up with you in the coming year!

Daniel Morris, President

A LETTER FROM OUR PRESIDENT

MEET THE LEADERSHIP

Vice President
Ivan Voroshilov is a 4th year Mechanical Engineering student. After fulfilling a technical role last year, he plans to refine the team’s organization and knowledge base.

Technical Director
Gregorio Ferreiro is a fifth-year Aerospace Engineering Student. He has played prominent roles in the design and development of TR-15 and is the Technical director for the TR-16s and TR-18 projects.

Project Manager
Ian Holm is a third-year transfer student in Aerospace Engineering. After holding a technical position in 2016, he felt he could help keep the team focused on completing the project.

Director of Marketing and PR - External
Will Hastings is a 2nd year International Business student. With the automotive industry as his career goal, he is determined to improve sponsor relations and bring more interest to the program.

Director of Marketing and PR - Internal
Alex Tran is a 4th year Systems Engineering student focusing in electromechanical systems. He has been with Triton Racing since 2013 and will be leading relations efforts inside the university this year.

Treasurer
Connor Smith is a 3rd year Economics major with an Accounting minor. With a deep love for cars and foundational background in mechanical engineering, Connor’s goal is to optimize the back office activities of the team.
Every year, Triton Racing designs, builds, and tests a new open-wheeled single seater racecar design for Formula SAE, a student design competition held by SAE International. The competition is multi-faceted and draws on the complete set of skills required in a real engineering firm: from engineering and design to build, cost, and marketing. There are multiple international competitions, some with over 100 universities in attendance.

Before we can drive the car, it must pass a rigorous technical inspection. Not all the cars that show up to competition will be able to collect all four tech stickers, so simply driving in the dynamic events is a feat unto itself. While the team puts the car through inspection, other team members have to defend the car in three static events.

During the design presentation the design team explains every part of the car, from the overall vision down to the location of wiring. In the cost presentation, teams estimate the total cost of manufacturing their vehicle, including a detailed breakdown of costs to produce every part designed by students. Points are given for total cost as well as the report and a real world example. The business presentation requires the PR team to present the team as a small racecar company asking for investment. All static events are judged by experienced volunteers from the automotive industry.

The dynamic portion of competition is a grueling set of tests designed to measure the car’s acceleration, cornering ability, and endurance. After the shorter tests, the dynamic events culminate in the punishing 22km endurance race. A successful team strives to have drivers who have all had plenty of seat time before competition begins, but delays can result in drivers hopping in the car for the first time before an event.

<table>
<thead>
<tr>
<th>STATIC EVENTS</th>
<th>DYNAMIC EVENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design 150</td>
<td>Acceleration 75</td>
</tr>
<tr>
<td>Cost 100</td>
<td>Skid-Pad 50</td>
</tr>
<tr>
<td>Business 75</td>
<td>Autocross 150</td>
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<tr>
<td></td>
<td>Fuel Efficiency 100</td>
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<tr>
<td></td>
<td>Endurance 300</td>
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<tr>
<td></td>
<td>TOTAL 1000</td>
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**Historic Team**

Triton Racing started with a Yamaha FZR 600 motorcycle engine and scored ~175 points in 1997 and ~125 points in 1998.

**TR-4**

The 2004 car used parts from conventional road vehicles to save development time. It placed 73rd at Detroit 2004 with 285 pts.

**TR-5**

In 2005, the team improved on previous designs with the addition of a supercharger and a reversed cylinder head. TR-5 placed 59th at the FSAE competition in Detroit with 351 points.

**TR-6**

Key changes to the 2006 car include: solenoid shifting, custom magnesium wheel centers, and a WRD differential. The car placed 2nd in the acceleration event and 29th overall at Fontana 2006 with 330 points.

**TR-7W**

In 2007, a separate women’s team competed with a car derived from the TR-4/5/6 years. TR-7W used brake calipers integrated within the magnesium uprights to allow for sleeker packaging of the wheels.

**TR-9 and TR-9e**

TR-9 featured a single cylinder Yamaha WR450 engine, bored and stroked to 565 cc, composite suspension components, and 10” wheels. The car finished 39th at FSAE West with 110 pts.

TR-9e, formerly TR-7W, was UC San Diego’s first electric race car. One of only 20 electric cars to pass tech inspection, it finished 9th overall.

**TR-11**

The 2011 team utilized the components of the TR-9, with a new chassis and the supercharger installed and working. TR-11 weighed 430 pounds and finished 41st at FSAE West with 225 pts.

**TR-14**

The 2014 team was the first to score in all events at competition due to the robust design and stock ECU on the 4 cylinder engine. The car earned 346.6 points and 43rd out of about 80 teams that showed up. TR-14 re-established the team, and is the first in the current era of Triton Racing.
During the 2014/2015 school year Triton Racing advanced its racing program by leaps and bounds. Through changes in the organizational structure and an amazing team of students, TR-15 was the first car in 10 years that was designed, manufactured, and assembled in a single school year. TR-16's design, which is an iteration of TR-15, is cutting edge with elements that were as unusual as they were innovative. Major design features include:

- Shorter overall length, 65” wheelbase
- Improved ergonomics: carbon seat with foam inserts, better steering wheel and shifter placement
- Implementation of unique De Dion space frame rear suspension
- Optimized aerodynamics package
- Powertrain efficiency enhancements
- Reduced overall weight by 30+ pounds

While the failure of the rear differential mount was a major blow to the morale of the team, it turned out to be a blessing in disguise. As a result of the transition to a two-year cycle, TR-16S, the name of the upgraded TR-16 car, will be the first car in the history of Triton Racing to have a full year of testing and development prior to competition. The car will be rigorously tested and pushed to its limits, giving TR-16S the chance to be one of the best cars that Triton Racing has ever produced.

The decision to go with the two-year plan allowed us to challenge ourselves more than ever before. Along with the rigorous testing of TR-16S, the team has decided to develop a second car, TR-18, utilizing the platform of TR-16S. TR-18 will have a shortened wheelbase and reduced overall weight. The data we collect from this year's testing has the potential to make TR-18 the most competitive car in the history of Triton Racing.

The dedication of the team was evident and TR-16 was finished prior to the 2016 competition. However a component failure in the final stages of testing led to a decision to transition to a two-year program.
Like all racing teams, Triton Racing relies heavily on corporate sponsors to operate. By becoming a sponsor, you will be promoting your brand across a large, world-renowned research university, as well as to the public by associating it with the prestigious name of The University of California, San Diego. You will also be supporting many talented students by helping them develop the hands-on skills in engineering, marketing, and project management that aren’t taught in the classroom. Triton Racing offers a number of different sponsorship levels with benefits ranging from access to our talent network, to your logo prominently displayed on the center of our car, to access to the car and members of our team for promotional services.

Triton Racing is a registered 501(c)(3) non-profit organization. All donations are tax-deductible. Please see your tax advisor or contact us for further details.

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### Benefits of Partnership

Triton Racing is always looking for new partners and regardless of where you feel your company fits within our levels we would love to work with you and create a custom package tailored to your company's needs.

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<tr>
<th>Sponsorship Levels</th>
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<tbody>
<tr>
<td><strong>FRIEND</strong></td>
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<tr>
<td>Logo displayed on team website. Access to our growing social media presence. Recruiting access to team members.</td>
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<tr>
<td><strong>BRONZE</strong></td>
</tr>
<tr>
<td>All benefits received by “Bronze” level sponsors. Small logos on banner and side of car. Logo displayed on all team apparel. Small logos on team trailer.</td>
</tr>
<tr>
<td><strong>SILVER</strong></td>
</tr>
<tr>
<td>All benefits received by “Silver” level sponsors. Medium size logos placed on car, banner, and trailer. Company banner displayed at team events. Small monochrome logo displayed in monthly newsletter.</td>
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<tr>
<td><strong>GOLD</strong></td>
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<tr>
<td>All benefits received by “Gold” level sponsors. Large logos on both sides of the car and banner. Promotional use of car for expos, company events, or display. Medium color logo displayed in monthly newsletter.</td>
</tr>
<tr>
<td><strong>TITLE SPONSOR</strong></td>
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<tr>
<td>All benefits received by “Gold” level sponsors. Extra-large logos placed on choice location on car and team banner, Triton Racing apparel, promotional videos, and large color logo in newsletter. Also included is a customizable Title Package.</td>
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</tbody>
</table>
Thank You!

UC San Diego Triton Racing thanks you for your thoughtful consideration! We hope to add your organization to the list of esteemed partners that have helped us become one of the most promising collegiate racing teams in the world. If you have any questions about our team or our chapter of SAE International, please do not hesitate to contact us at:

UCSDTritonRacingPR@gmail.com
Huge Thanks to Triton Racing’s 2016 Sponsors

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Altair

Cryoheat

ANSYS

MathWorks

Hoosier

Stäubli

Traffic Safety Store

VXB BALL BEARINGS

AEROMOTIVE

Special Thanks To:
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