



To whom it may concern,

My name is Morgan Jones. I am an Industrial Systems Engineering student at Virginia Tech and a member of the Virginia Tech Formula SAE team. VT Motorsports Formula SAE is a non-profit organization that challenges Virginia Tech engineering students to design and fabricate a formula style race car, seeing it through initial concept to reality. Upon completion of the car, the team participates in a formal competition that judges the design and performance of the vehicle. Virginia Tech's Formula SAE team draws some of the best and brightest engineers and has consistently been a top contender at competition.

Every year, VT Motorsports brings a new car to competition with improved performance and an updated design. To maintain the program's growth, high performance parts and high quality materials are used extensively. This year our design includes an improved full aerodynamic package, wireless data acquisition, customizable driver controls, and a carbon fiber monocoque chassis in order to remain competitive and improve on last year's success. In addition to the traditional combustion powered vehicle, VT Motorsports will be producing a zero emissions, fully electric vehicle built to the SAE regulations that will be eligible for competition based on three years of research and development. This vehicle will undergo extensive testing over the next year before competing in the summer of 2017. As with building any high performance vehicle, the design and construction is expensive. The cost of design, manufacturing, and testing is expected to exceed \$100,000. The majority of our team funding comes in through generous sponsors, like yourself. Support of any amount, whether it is a donation or discount, is vital to the success of our program.

I have attached a sponsorship proposal which includes more information about our team project, the sponsor benefits we offer, as well as tax deduction documents. Any support is extremely valuable and we are very grateful to companies who have sponsored us in the past as well as the companies that continue to offer their support. If you have any questions, concerns, or would like to discuss the levels of investment and forms of support please do not hesitate to contact me through email at [mjones23@vt.edu](mailto:mjones23@vt.edu) or by phone at (443) 847-5857. On behalf of the Virginia Tech Formula SAE team, thank you for your time and consideration in this matter and we hope to hear from you soon.

Sincerely,  
Morgan Jones  
VT Motorsports Formula SAE





## Formula SAE Team Sponsorship Proposal and Funding Request

**Subject:** Request for Formula SAE sponsorship

**Project Name:** Formula SAE

**Faculty Advisor:** Robert West, Ph.D., Department of Mechanical Engineering

**Tentative Budget:** \$100,000

### Funding Request Summary

The Virginia Tech Formula SAE senior design project is requesting support for the 2016-2017 year. The Formula SAE series is a competition sponsored by the Society of Automotive Engineers which challenges design teams to design and build a car that competes in a wide range of autocross style race events. This international competition will take place in May at Michigan International Speedway.

### Student Participation Summary

The 2016-2017 Formula SAE team consists of a diverse group of freshmen through seniors studying various disciplines of engineering. The 2017 graduating seniors are directly responsible for components on the 2017 competition car. The junior members of the team are working to flesh out and design their concepts for the 2018 competition car. The team is currently developing two vehicles, one combustion competition car and one fully electric powertrain. There are also several more underclassmen volunteers whose goal is to learn the basics of the team and begin to formulate new ideas for the year they will be designing their own car. It is important for students at all levels to be deeply involved in order to effectively transfer knowledge.



## Proposal of Activities

Due to the consistently large scale and high performance aspect of this project, fundraising has always been a major focus of the team. Without the continued support of team sponsors and the generous donations they provide, the team would not be able to remain competitive year to year. In 2015, the team attended SAE's annual competition at Michigan International Speedway in Brooklyn, Michigan. The team did very well, placing 7<sup>th</sup> in autocross, 8<sup>th</sup> in efficiency, 4<sup>th</sup> in endurance, and nearly making the top ten in design finals. The team's excellent performance in all events led to a 6<sup>th</sup> place overall finish in the competition. In 2016, while we were plagued with powertrain issues near the end of the weekend, we were still able to finish a respectable 12<sup>th</sup> in design and 13<sup>th</sup> in the skidpad event. We believe that the result from competition does not show how capable the 2016 vehicle is and this has motivated the 2017 team to compete at a higher level. This year, the team strives to place in the top 5 overall and make it to the final round in the design competition.

The Formula SAE program is one of the only two-year design projects in the engineering department at Virginia Tech. The extra time afforded by having a two-year design cycle has contributed greatly to the team's continued success. Currently the team is working diligently to have more underclassmen involved at the freshmen and sophomore level. This allows the younger students to work with experienced upperclassmen to learn engineering design, manufacturing processes, time management, and resource allocation at a younger age through hands on experience. Although early participation promotes a stronger design it also places a financial burden on the team. Increased participation requires additional resources and research materials to be purchased.

## Budget

Similar to past years, the total projected costs for the 2017 VT Formula SAE car are high in order for the team to excel at competition in both design and performance. Total projected 2016-2017 VT FSAE expenditures are shown in Table 1. The goal for 2017 is to raise a minimum of \$100,000 in order to assure the continued success of our program.

VT Motorsports FSAE 2015-2016 Team at Michigan International Speedway, May 2016.

