The Vanderbilt University Motorsports Team is a student formula-car racing team. We build precisely engineered race cars that are the collegiate equivalent to an F1 car. We compete against over 100 of the best engineering schools in a competition called Formula SAE® that is organized by the Society of Automotive Engineers (SAE®). The judges are automotive engineers from leading passenger and race car manufacturers.

To succeed, we combine our education, teamwork, business skills, project management, and passion for cars. The team is a real engineering and business endeavor that hones our skills and prepares us to enter the workforce. A project of this complexity and scale is uncommon for a student organization. It is made possible by our generous corporate and individual sponsors. Following are more details about our team and how you can participate.
OUR FORMULA CAR

Competition requires us to build a new car every year. This means we are continuously designing and fabricating one car while testing and tuning another. We begin by analyzing performance data from the previous year’s car. Using SolidWorks® software, we modify the design to enhance performance in areas such as chassis stiffness, suspension geometry, and overall weight. Before manufacturing, we use MSC® simulation software to generate predictive data.

At competition we drive and give presentations. Drivers train extensively to be able to maximize the cars engineering. Presenters rehearse for months to be able to act as a manufacturing firm that is introducing a prototype to potential investors. The cars engineering, cost, safety, and marketability must be defended.

Specifications of the VUM-13

**CHASSIS:** 4130 Chromoly Space Frame

**BODY:** Fiberglass

**SUSPENSION:** Double Wishbone w/ Pull-rod actuated Rises® dampers and Ohlins® springs

**BRAKES:** In-house fabricated 7” rotors w/ ISR® calipers and Tilton® master cylinder and bias controller

**TIRES:** 10” Hoosier® Racing

**ENGINE:** Yamaha® YFZ 450

**TRANSMISSION:** 5 Speed with Rekluse® Clutch

**REDLINE:** 11,000 RPM

**POWER:** 42 hp @ 8500 RPM, 31 ft. lbs. of torque

**TOP SPEED:** Approx. 90 mph

**ACCELERATION:** 0-60 mph approx. 3.5 seconds

**DRIVELINE:** Chain driven Taylor® Racing Axles

**DIFFERENTIAL:** WRD® Modified Salisbury Clutch Differential

We fabricate the chassis, suspension, steering, and most other car components in our own machine shop, which was donated by Joe Dorris, BE ’65. This process involves several hundred hours of labor that give us invaluable insight into the intricacies of modern industrial manufacturing. Once the chassis is completed, we transfer well-performing parts from the previous year’s car to the new one. As soon as the car is completed, we test it and tune it to optimize performance and get it ready for competition.
We want our sponsors to benefit as much as possible. Sponsors of the Vanderbilt Motorsports team gain exposure throughout the Vanderbilt community. All sponsors will have their logos placed on the bodywork of the vehicle and on our website.

The Vanderbilt Motorsports machine shop, which always has the car prominently displayed, is a feature of university tours. In addition, the team is a focus of Vanderbilt Parent’s Weekend, Scholar’s Weekend, and Engineering Week. The motorsports team is very attractive to prospective engineering students.

Corporate sponsors are recognized by Vanderbilt Motorsports as contributing to the education and professional development of team members. These members, some of the finest engineering students in the country, get direct hands-on exposure to our sponsors’ companies and products, which translates into strong product experience and familiarity as we enter the engineering industries.

## 2014 Sponsorship Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>$10,000+</td>
<td>- Drive the car</td>
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<td></td>
<td>- Decals on car in A section and various other locations</td>
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<td></td>
<td>- All lower benefits</td>
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<tr>
<td>&lt;$10,000</td>
<td>- Decals on car in sections C or B</td>
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<td></td>
<td>- Sponsor-supplied patch on driving suit</td>
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<td></td>
<td>- Vehicle available for off-site event booking</td>
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<td></td>
<td>- All lower benefits</td>
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<tr>
<td>&lt;$5,000</td>
<td>- Decals on car in sections E or F</td>
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<td></td>
<td>- Sponsor logo on team clothing</td>
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<td></td>
<td>- All lower benefits</td>
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<tr>
<td>&lt;$1,500</td>
<td>- Decals on car in sections D or G</td>
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<td></td>
<td>- Sponsor’s name on all promotional material</td>
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<td></td>
<td>- Newsletter with updates from team</td>
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<td></td>
<td>- All lower benefits</td>
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<tr>
<td>&lt;$500</td>
<td>- Banner with sponsor’s logo displayed at competition and shop facilities</td>
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<td></td>
<td>- Logo with link to sponsor’s website on <a href="http://www.vanderbilt.edu/motorsports">www.vanderbilt.edu/motorsports</a></td>
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<td></td>
<td>- All lower benefits</td>
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<tr>
<td>&lt;$300</td>
<td>- Tax-deductible donation</td>
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<td>- Logo on car</td>
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Our goal is to build a formula car that can accelerate as quickly as possible in all directions while maintaining control and adhering to competition regulations. Automotive engineering companies invest millions of dollars to solve the same challenges we are tackling. It is amazing what we are able to do with the generous help of our sponsors.

- Competition registration fee: $2,050
- Travel, accommodations, and vehicle transport expenses: $4,500
- Upgrade our dynamometer to allow engine tuning: $8,000
- Yamaha YFZ-450 engine $1,000-2,000
- Set of 4 tires (tires only last one competition or a couple weeks of testing): $800
- Team uniforms
- Steel tubing
- Aluminum sheet
- Electronics
- Composites
- Traffic cones for training
- Aircraft grade fasteners

Your sponsorship is what makes our team possible.

To join us in making Vanderbilt Motorsports a collegiate formula-racing power, please contact:

**SETH SCHRAGE**  
seth.a.schrage@vanderbilt.edu  
(617) 538-1416

**PHIL DAVIS**  
philip.l.davis@vanderbilt.edu

**Make checks payable to:**  
Vanderbilt University  
Memo: Vanderbilt Motorsports

**Our mailing address:**  
Phil Davis  
VU Station B 351826  
Nashville, TN 37235-1826