

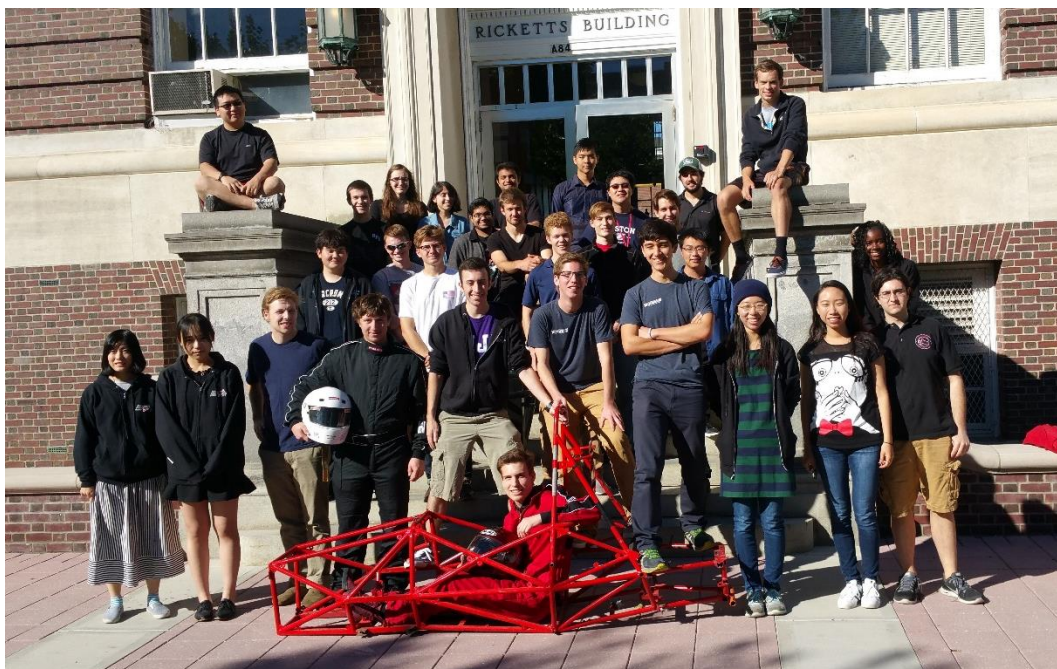


**'17-'18**  
**Sponsorship Package**

## **About the Team**

Rensselaer Formula Hybrid is a student-run organization that promotes the advancement of engineering proficiency at Rensselaer Polytechnic Institute in Troy, NY. The team provides hands-on experience in a multi-phased project development process and in engineering design practice far beyond a standard university curriculum.

Members build invaluable skills in product-design, team collaboration, and project management, helping to properly prepare them for professional careers in the world of engineering and management.



## **About the Competition**

Formula Hybrid is an international collegiate event held at the New Hampshire Motor Speedway in Loudon, NH every spring. The competition attracts top students from a long list of highly-reputable schools, many of which place educational emphasis on STEM research and development. To compete, student teams must design, manufacture, and build a highly complex, formula-style racecar employing a hybrid drivetrain.

The student vehicles are then put through a rigorous set of inspection processes, design evaluations, and dynamic racing events in order to test the overall vehicle abilities and engineering proficiency. The competition promotes creativity and design innovation to help drive technical educational development.

## Partnerships

As a self-funded team, Rensselaer Formula Hybrid relies entirely on generous partnerships with top technical companies and organizations. We hold these relationships with high-regards and look to build strong networks with those that share our passion for science, engineering, and technology.



## Why Sponsor?

By sponsoring Rensselaer Formula Hybrid, you are directly supporting technical education at an advanced level. We cherish the connections we have built with our current and past supporters and invite sponsors to follow our team throughout each year with monthly progress updates including information and visuals regarding how your support is being utilized by the team. This material is always available for both commercial and non-commercial use by sponsors.

Sponsors also gain a direct communication line to some of the brightest minds at one of the nation's top engineering schools. Many past sponsors have gone on to recruit team members and form valuable networks with Rensselaer Polytechnic Institute. Our shop is always open for sponsor visitation!

## Our '17-'18 Engineering Developments:

### Powertrain:

- Independent four wheel drive
- Dynamic torque vectoring
- Inline planetary reducers

### Driver Interface:

- Custom steering wheel HUD
- Custom pedalbox

### Engine/ICE:

- Series hybrid configuration
- Electronic fuel injection

### Suspension:

- Active hydraulic anti-roll
- Active ride height control

### High Voltage:

- 3.8kWh proprietary LiCo pack
- Liquid cooling system
- Quick-service container design

### Body Kit/Aero:

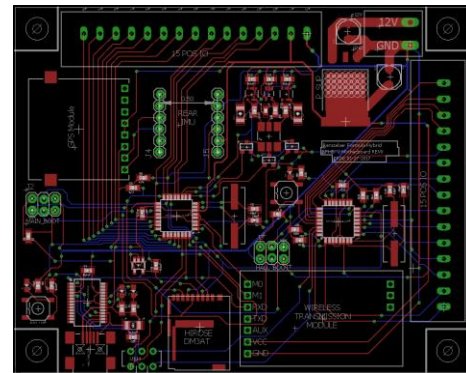
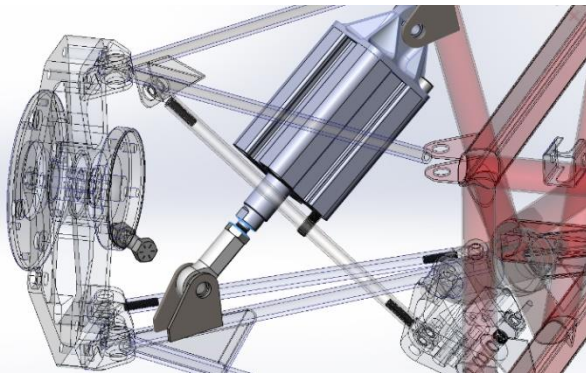
- Carbon fiber bodykit
- Integrated passive cooling ducts
- Active front and rear wings

### Sensory Systems:

- Custom telemetry system
- Over 40 vehicle sensors
- Proprietary control boards

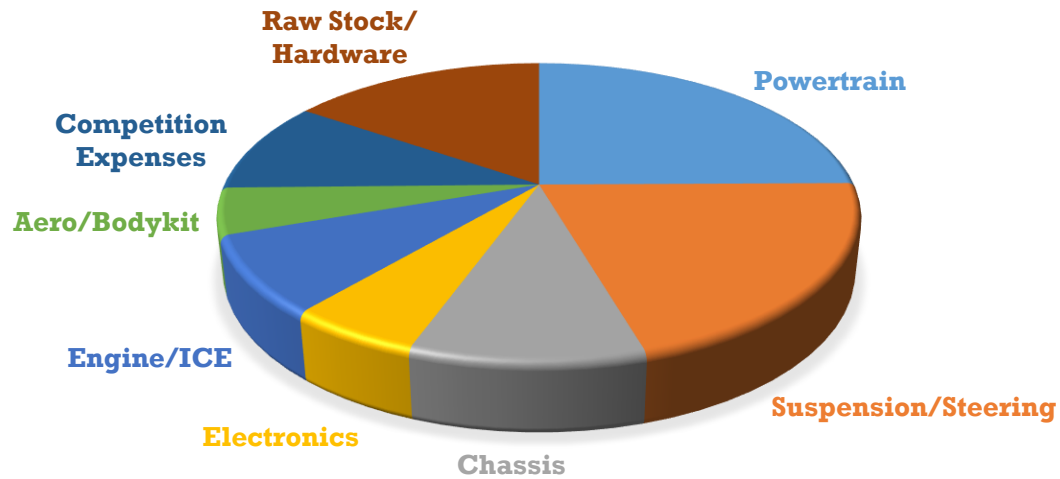
### Control Systems:

- Custom traction control unit
- Driver-tunable vehicle response
- “Learning” computation elements





## Estimated '17-'18 Expenses:



<b>Powertrain</b>	\$ 7,400
<b>Suspension/Steering</b>	\$ 6,150
<b>Chassis</b>	\$ 3,000
<b>Electronics</b>	\$ 1,700
<b>Engine/ICE</b>	\$ 2,500
<b>Aero/Bodykit</b>	\$ 1,500
<b>Competition Expenses</b>	\$ 2,950
<b>Raw Stock/ Hardware</b>	\$ 4,600

**Total Funding Goal:  
\$30,000**



### **Our Yearly Plan:**






The 2018 competition year will see a complete vehicle redesign from Rensselaer Formula Hybrid. Expanding from the ingenuity behind our 2017 vehicle, VMR-2, the 2018 vehicle will see a switch to series-hybrid drivetrain configuration with a four-wheel independent drive system and custom, purpose-built traction controller, active hydraulic suspension, significantly improved aerodynamics package, and more.

With system design already underway, the team expects to begin primary manufacturing and assembly by November, 2017. With the ground-up mindset of this vehicle design, your support is appreciated now more than ever!



*VMR-2, Rensselaer Formula Hybrid's 2017 competition vehicle.*

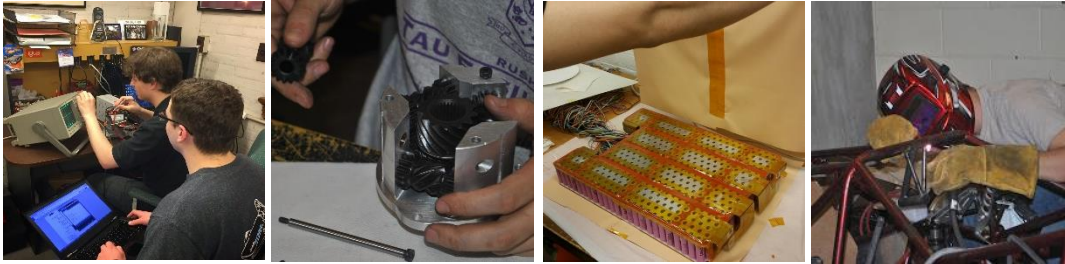
## **Sponsorship Levels:**

<b>Parabolica Platinum</b> 	<ul style="list-style-type: none"><li>-Vehicle appearance at donor's event of choice (within 150 miles of Troy, NY)</li></ul> <p>(Plus Everything Below)</p>
<b>Eau Rouge Ruby</b> 	<ul style="list-style-type: none"><li>-Aluminum "Thank You" plaque, designed and manufactured by team</li><li>-Team shop tour and visit with student members</li></ul> <p>(Plus Everything Below)</p>
<b>Genting Gold</b> 	<ul style="list-style-type: none"><li>-Large logo on 2018 competition car</li><li>-Company material distribution at team campus and outreach events</li></ul> <p>(Plus Everything Below)</p>
<b>Senna S Silver</b> 	<ul style="list-style-type: none"><li>-Logo on team shirts</li><li>-Medium logo on 2018 competition car</li><li>-Shout-out/advertisement on team social media and outreach events</li></ul> <p>(Plus Everything Below)</p>
<b>Becketts Bronze</b> 	<ul style="list-style-type: none"><li>-Logo and link on team website</li><li>-Small logo on 2018 competition car</li><li>-Newsletter updates throughout season (press use welcome)</li></ul>

*\*Or equivalent in parts/discount/services  
Other accommodations available upon request.*

## **Tax Deductions:**

All contributions to Rensselaer Formula Hybrid are recognized as tax-exempt charitable donations under 501(c)(3) IRC regulations. Our administration team will work with you to provide tax receipts and any additionally required charitable documentation.



## **How to Donate:**

If you would like to contribute to the growth of Rensselaer Formula Hybrid, please contact a team representative below:

### **Evan Engisch**

Principal Team Lead

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### **Costas Metropoulos**

Chief Administrator

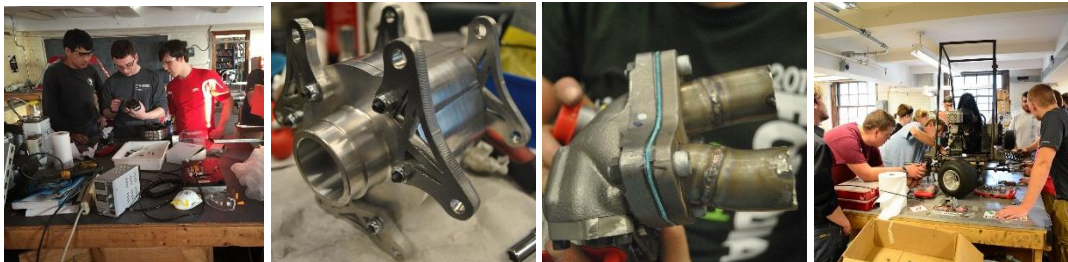
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