

# '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 Louden, NH every spring. The competition attracts top students from a long list of highly-reputable schools, many of which focus educational emphases on STEM research and development. To compete, student teams must design, manufacture, and build a highly complex, formula-style racecar consisting of 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 the efforts of 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!

Additionally, we promise extensive sponsorship acknowledgment and direct public advertisement in the following forms:

- -Logo placement on competition vehicle
- -Acknowledgement on team website
- -Advertisement at non-competition events (auto shows, tech conventions, etc.)
- -Promotion via social media
- -University outreach

# **Our '17-'18 Engineering Developments:**

#### Powertrain:

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

#### **Driver Interface:**

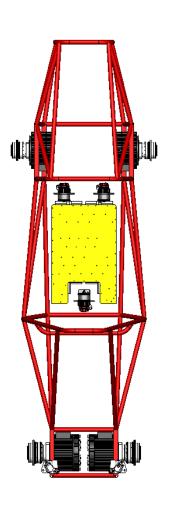
- -Custom steering wheel HUD
- -Custom pedalbox

#### Engine/ICE:

- -Series hybrid configuration
- -Electronic fuel injection

#### Suspension:

- -Active hydraulic anti-roll
- -Active ride height control



#### <u> High Voltage:</u>

- -Battery pack redux
- -Custom battery cooling system
- -Quick-service container design

#### Body Kit/Aero:

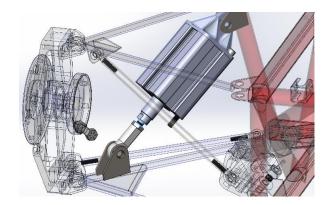
- -Carbon fiber bodykit
- -Integrated passive cooling ducts
- -Front/rear wings

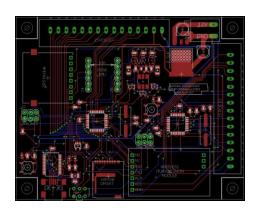
#### **Sensory Systems:**

- -Custom telemetry system
- -Over 40 vehicle sensors

#### **Control Systems:**

- -Custom traction control unit
- -Driver-adjustable vehicle response





# **Our Yearly Plan:**

The 2018 competition year will see a complete vehicle redesign from Renssealer 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 with a custom, purpose-built traction controller, active hydraulic suspension, significantly improved aerodynamics, 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.

#### **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 reciepts 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:

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