

# FORMULA STUDENT

Institution of  
**MECHANICAL ENGINEERS**

# Lancaster University



LANCASTER eRACING





# FORMULA STUDENT

Formula Student is a series of international university competitions with over 500 teams competing worldwide, competing at famous tracks like Silverstone, The Red Bull Ring, and Catalunya F1 Circuit. The UK event is organised by the IMechE and backed by top engineering firms like MBDA, Jaguar Land Rover, and others.

Formula Student website

<http://events.imeche.org/formula-student>

The students are challenged to design, manufacture and build a single seater open wheel formula style race car and then compete in a variety of static and dynamic events, which demonstrate the students understanding and test the performance of the car.

# LANCASTER UNIVERSITY

The Lancaster University Engineering Department has made great strides and has been placed 3<sup>rd</sup> in the UK for mechanical engineering in the Guardian 2018 league tables as well as achieving the prestigious title of “University of the Year” as per The Times and Sunday Times, ranking 9<sup>th</sup> overall. The Engineering Department’s recent move into a brand new building, with a dedicated area for the Formula Student team, was specifically designed to help achieve the best of results.

## Who we are.

We are a group of passionate and ambitious 4<sup>th</sup> year Engineering Masters students from Lancaster University. This project not only forms a huge part of our IMechE accredited degrees, but also enables us to develop our real industry skills and gives us the opportunity to represent our university on a global stage.

## Our Story

To build upon the global success shown by the recent transition of formula student race cars from IC systems to electric, in 2016, Lancaster University FS team also made the move. This year our team will build upon our solid foundations to produce what will be our most technologically advanced vehicle in our history.

## Why donate to us

Despite our small size, we still manage to dominate against all of our larger rivals in the north west and now also hold the prestigious title of “University of the year” given by The Times and Sunday Times.

As a team, we work full time, unpaid hours driven only by our dedication to improve and succeed.

Because we are a small student run team, our partners are extremely important to us. We rely heavily on your support, without which we would not be able to operate at the high standard that Lancaster University is known for.



**2016/2017**

**Lancaster's First Electric Vehicle**



**2014/2015**

**500cc Singe Cylinder Engine**



**2013/2014**

**First Time Using a 500cc Single Cylinder Engine**

# SPONSORSHIP PACKAGE

## Platinum >£6,000

- One large logo will be featured in the prominent position on the race car
- Additional Benefits negotiable to meet sponsors' requirements
- Input into the 2018 car's livery

## Gold £3,000

- Two medium logos will be featured in noticeable positions on the race car
- A company logo will be displayed in the engineering building

## Silver £1,500

- Two standard logos will be featured in noticeable positions on the race car
- Invitation to present your company to Lancaster University Undergraduate and Postgraduate Students
- Receive a Framed picture of Lancaster eRacing car & team

## Bronze £500

- Invitation to Lancaster eRacing launch event in June 2018
- Your logo and company information will be featured on our website
- Your logo and company will be featured on the stands we take to the event
- Inclusion in any promotional material and press releases
- Receive promotions on our social media pages
- One small logo featured on the car

**Other positive contributions are welcomed. Please don't hesitate to get in touch for further details.**

**Sponsorship tier brackets are flexible guidelines.**

All sponsorship packages are the same for equivalent value products or services.

All Packages can will include the benefits of lower bands, excluding the additional logos on the car



# BRAND EXPOSURE

By becoming a sponsor of Lancaster eRacing Team, your company will benefit from the exposure that our team receives from the student community, social media pages and Formula Student associated contestants and companies.

The top three sponsors that make the highest contribution to the team at the end of the 2018 will have their company logo printed in large on the Lancaster eRacing Teams' official uniform that will be purchased and worn at promotional event as well as the final event at Silverstone.

Upon request relevant test data can be supplied for any product donated to Lancaster eRacing.

# CAR DESIGN

## **Chassis Team**

The team will design a robust frame with a carbon fibre floor to ensure a high strength-to-weight ratio and stiffness.

## **Powertrain Team**

This year team have decided to design and optimise an electric power train. By moving to an electronic powertrain, the team believe a greater performance can be obtained, as well as moving in alignment with the global car industry.

## **Suspension, Steering, and Braking Team**

Are responsible for the dynamic behaviour of the vehicle, through the design of the suspension linkage system, steering rack and braking performance.

## **Aerodynamics Team**

Aims to minimise drag through the design and manufacture of the underfloor and body panels. This will result in extended range and improved acceleration as less power will be used to overcome drag.

## **Electronics Team**

Using a large array of on board sensors to monitoring a wide variety of features on the car, the team will be able to maximise the performance. This will include the use of an electronic differential, traction control and telemetry data, whilst also implementing procedures to guarantee the safety of the team.

# TEAM MEMBERS



**Gerard Shields**

- Mechanical Engineering
- Breaking systems
- Team Leader



**Jack Rhodes**

- Mechanical Engineering
- Suspension and Steering
- Mechanical Team Leader



**William Evans**

- Electrical Engineering
- Low Voltage Systems
- Electronics Team Leader



**Gerard Shields**

- Mechanical Engineering
- Battery Management
- Sponsorship and Business Case



**Alex Hedges**

- Mechanical Engineering
- Low Voltage Systems
- Sponsorship and Publicity



**Douglas Morton**

- Mechanical Engineering
- Chassis and Impact Attenuator
- Breaking systems



**Alicia Feledziak**

- Mechanical Engineering
- Data Logging and Interface
- Sponsorship and Publicity



**Jake Elson**

- Mechanical Engineering
- Battery Containment
- Design Event Manager



**Michael Holmes**

- Mechanical Engineering
- High Voltage Systems
- Financial Manager



**Mike Richards-Brown**

- Mechanical Engineering
- Aerodynamics
- Report Compilation



**Panos Megerditchian**

- Mechatronic Engineering
- Control Systems
- Safety Officer



**Alex Dunnell**

- Mechanical Engineering
- Chassis
- Costing Reports

# CONTACT DETAILS



## Get Involved

If you would like to sponsor us, donate or simply find out more, please do not hesitate to get in touch using the email address shown below.

## Sponsorship Team

**Jack Bolt | Alicia Feledziak | Alex Hedges**

**Email: [racinglancaster@gmail.com](mailto:racinglancaster@gmail.com)**



<http://www.engineering.lancs.ac.uk/lancaster-racing>



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