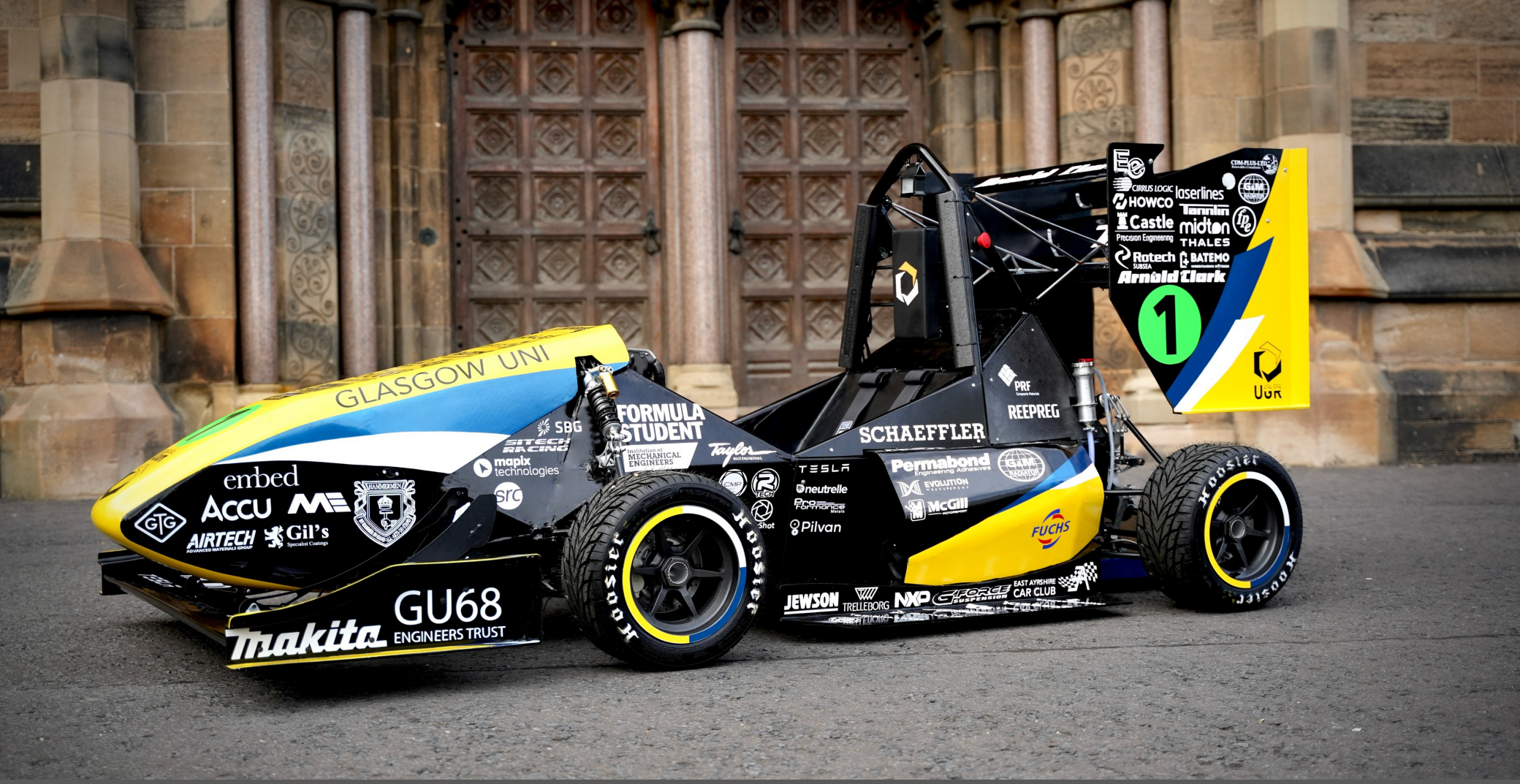


University of Glasgow
RACING

PARTNERSHIP OPPORTUNITIES

partnerships@ugracing.co.uk

We are UGRacing, Champions of Formula Student UK 2022.

Our team of around 140 University of Glasgow students design, build and race a single-seater race car to take to Silverstone each July and with your support – we aim to challenge once again for the top spots at FSUK 2023. The team also enters the FS-AI competition, which involves the design and implementation of an autonomous driving system that is raced around a set of specialised tracks at Silverstone.

By partnering with us, we will promote your brand on our car, through social media, on the website and on our team kit. This will all be seen by thousands of like-minded industry professionals at our annual competition and throughout the year. We are also able to offer networking and recruitment opportunities in partnership with the University of Glasgow, ranked among the world's Top 100 universities.

It is an incredibly exciting time to be involved with UGRacing. After an award-winning display in the static events in 2023, the team now has a solid foundation on which to build as we look to return to victory in our second year as an EV-class competitor.

Our team can only continue achieving these results thanks to the fantastic support we receive from our partners, and we very much hope that you will join us and play a part in our success. Please read on to discover more about the competition, our plans for the future and how we can build a mutually beneficial partnership.

Jolie Bonner
Team Principal

UGR

The Competition.

Formula Student (FS) is Europe's most established educational engineering competition. Backed by industry and high-profile engineers such as Patron, Ross Brawn OBE, the competition aims to develop enterprising and innovative young engineers and encourage more young people to take up a career in engineering.

Formula Student UK takes place at Silverstone Circuit, one of the most iconic racetracks in the world. Events are designed to evaluate multiple aspects of the team's performance, including engineering design and validation, the car's speed and agility, an in-depth cost analysis and a mock business presentation which involves pitching the vehicle to an investor. The Driverless team competes in the same set of dynamic events as they put their work to the test with the AI vehicle.

UGRacing competes annually against over 100 other universities from the UK, Europe and beyond. The competition provides participants with an invaluable learning opportunity, where skills such as problem-solving, teamwork, marketing, management, communication and manufacturing can be developed in a real-world setting.

The Team.

2014
12th
Business: **15th**
Cost: **11th**
Design: **12th**

2015
51st
Business: **20th**
Cost: **51st**
Design: **44th**
Endurance: **6th**

2016
87th
Business: **37th**
Cost: **36th**
Design: **72nd**

2017
21st
Business: **18th**
Cost: **20th**
Design: **24th**

2018
11th
Business: **2nd**
Cost: **25th**
Design: **16th**
Endurance: **15th**

2019
12th
Business: **3rd**
Cost: **32nd**
Design: **8th**
Endurance: **15th**

2021
8th
Business: **15th**
Cost: **18th**
Design: **3rd**
Endurance: **10th**

2022
1st
Design: **5th**
Skid Pad: **2nd**
Acceleration: **4th**
Sprint: **1st**
Endurance: **3rd**

2023
15th
Business: **15th**
Cost: **7th**
Design: **3rd**

2024
?

We are the University of Glasgow's Formula Student team. Competing since 2007, UGRacing's 1st place result at the 2022 Formula Student UK competition not only makes us only the third UK team to ever win the title, but also cements UGRacing as the most successful team in Scottish history. Everything we have achieved as a team would not be possible without the support of our partners. Without them the development and achievements UGRacing manage each year would be unachievable, and we are hugely grateful for their continued generosity.

With a team of around 140 dedicated and talented students, UGRacing is an exceptional platform to learn, experiment and develop skills. The team provides the perfect environment for its members to apply their knowledge to real world scenarios and problem solving, gaining valuable practical experience that a degree alone would not provide. UGRacing attracts and produces some of the universities most ambitious, driven and skilled students across all disciplines providing them with the opportunities to think creatively, problem solve, and get hands on manufacturing experience.

UGRacing is split into three divisions – electric vehicle development, driverless vehicle development, and operations. While the primary focus of the team is the design and manufacturing of the cars, our other dedicated sub teams provide support through business and project management for the team. Our team gives students from any degree background the opportunity to hone their skills and flex their creativity. UGRacing is often commended for our efforts towards diversity and inclusivity, and we pride ourselves on such praise.

UGR

Electric.

For the upcoming 2024 season, UGRacing is aiming to build upon a strong maiden performance as an EV team in 2023. We are looking to compete in dynamic events and continue to succeed in the static events come FSUK24.

The team learned so much throughout the 2022-23 season and managed to consolidate this at FSUK23, where we were praised highly by electrical scrutineers for the safety-driven design philosophy that we had adopted during the 2022-23 season.

The team's experience at the 2023 competition energized UGR and reassured the team that the journey to a fully electric vehicle was showing promising potential. Placing 15th overall out of 100+ universities, proved that UGR could be competing for podium finishes at competition in the coming years.

UGR's EV team is stronger than ever. The team is equipped with the means to design, manufacture and test a competition-winning electric vehicle and we could not be more excited for the opportunities which lie ahead.

The EV car includes an EMRAX-208 electric motor, capable of outputting 80kW of power, made possible through the use of a custom accumulator outputting 235 volts. UGR makes use of an epicyclic gearbox allowing for tighter packaging of our sophisticated drivetrain assembly whilst also taking advantage of a full aerodynamic package to produce downforce and stabilize the car all in the name of speed!

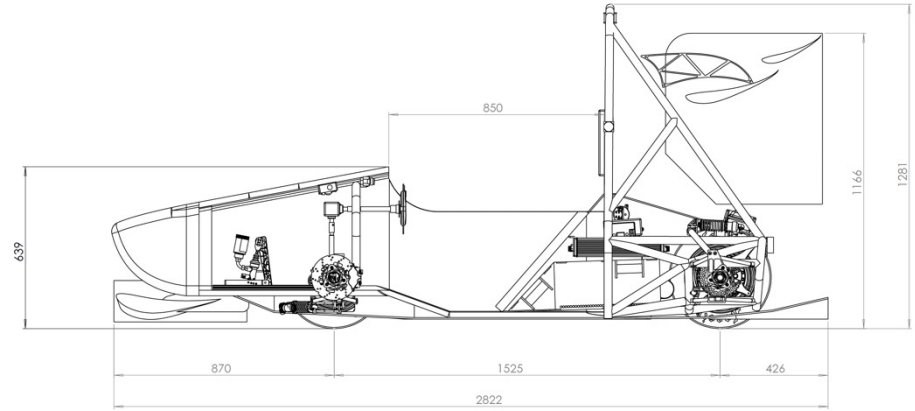
Concept.

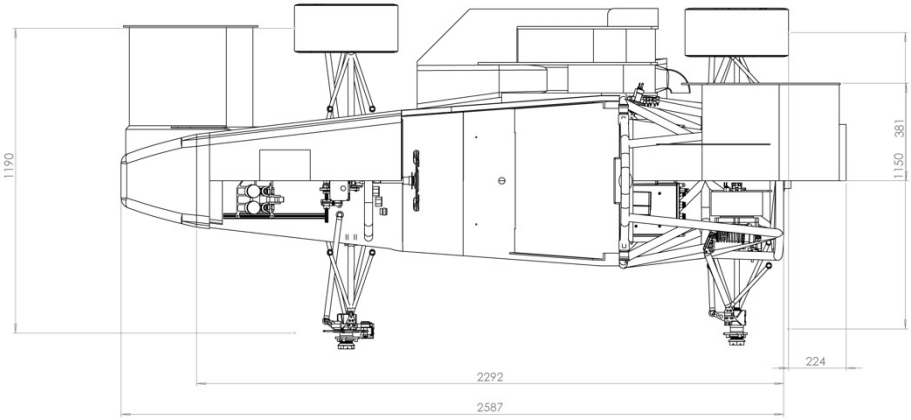
The concept team is a vital and influential part of UGR, consisting entirely of new recruits. They are challenged with a full year of design work as they prepare to compete in the Concept Class at FSUK alongside the EV and DV entries.

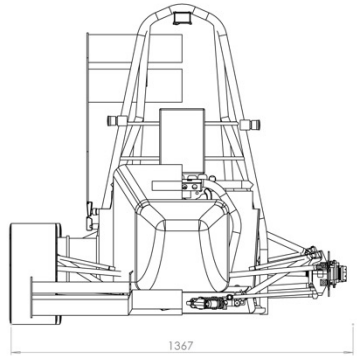
Concept members gain a full year of experience in which they can take on management roles and participate in a structured program which allows members to learn and grow within the team.

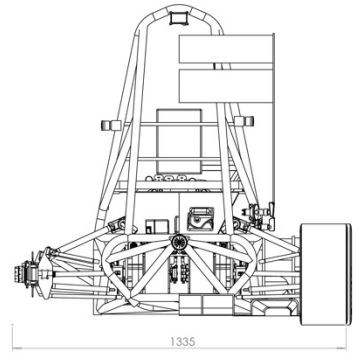
UGR takes advantage of a fully conceptual vehicle to research and develop new ideas that will become the foundation of future dynamic entries. Without the pressure of manufacturing or economic constraints, the Concept team are free to explore a plethora of designs which otherwise would not be viable for the team. This allows the team to constantly progress its knowledge of race car design and plays a key role in the development and knowledge transfer within UGR.

This year the Concept Class will design an autonomous and manually driven EV car which hopes to unify UGR's two major branches, EV and DV. The concept car will be designed and justified by its members before competing in the design, cost, business plan and lap time simulation events with the aim of improving on last year's best Concept finish of 7th place.









UGR

Driverless.

The Driverless team has been running for four years and is UGR’s newest team. In that time, they have developed an autonomous driving system from the ground-up, culminating in a podium finish at FS-AI 2023.

The system is comprised of three main sections. Perception are the eyes of the car and use cutting edge sensors and machine learning algorithms to detect cones on the track. State Estimation use an array of mathematical and statistical techniques to generate a map of the track and localize the car within it. Path Planning are responsible for generating an optimal racing line around the track, which they feed through a series of control systems to give the car driving instructions. The team is currently developing UGR's first in-house simulator, using upcoming simulation platforms such as Carla and Unreal Engine to create a high-fidelity synthetic environment.

The team works closely with industry and academic partners, with many members completing bleeding-edge research internships and going on to work for some of the largest names in technology, motorsport, defence and finance.

The team is placing a major focus on up-skilling new recruits, with a new and exciting internal R&D challenge that will force the newest members to learn on-the-job and grow into their roles within the team.

In the 2024 season Driverless aims to seriously improve the racing potential of their system. Refinements to mapping and path planning algorithms will result in a car that will not only drive around a track reliably, but complete laps in record time.

Let's work together.

Together, we can continue UGRacing's work as the most innovative, inclusive and friendly team competing in Formula Student and grow a relationship between your business and the UK's best student racing team.

We are grateful to receive support in any form; whether it be financial backing, material donations, manufacturing assistance, consultation, or discounted use of services, our partners play a vital role in providing the parts and services we need to design and build our car.

We work with all our partners to create a tailored partnership arrangement. The following list consists of the benefits we can offer:

Promotional Opportunities

Your company will be promoted against competitors at a top UK engineering competition by the current best Formula Student team in the country. This can include but is not limited to your logo on our kit and car livery, inclusion in our newsletter, and promotion on our social medias and website.

Networking and recruitment

UGRacing is comprised of some of the most talented and driven students at the University of Glasgow, many of which leave to take up leading positions in industry. By partnering with us, you with have direct access to the UGR talent pool and every opportunity for networking and recruiting.

Access to Testing Data

Comprehensive and thorough testing of the vehicle and its components has been key to our success. We now have access to a range of bespoke sensors and are happy to share any of this data with our partners.

Access to Exclusive Team Events

By partnering with us you will have access and invitations to several exclusive events. These can include testing days, our annual car launch event, and open days on campus and at our workshop. We can also arrange bringing our car to your offices for a demonstration and promotion.

UGR

GU68
ENGINEERS TRUST

Arnold Clark

HOWCO

midton

mapix technologies

Tannlin

G&M GROUP

CDM-PLUS-LTD
Renewables Consultants

Castle
Precision Engineering

HAGUE FASTENERS

THALES

GRAPHITE

GTG

THE SCOTTISH ASSOCIATION FOR METALS

CIRRUS LOGIC

TYGAVAC
ADVANCED MATERIALS LTD

SITECH RACING
performance and race car tuning

BATEMO
UNDERSTANDING BATTERIES

THE INCORPORATION OF HAMMERMEN OF GLASGOW

PRF
Composite Materials

Gil's
Specialist Coatings

SBG

EVOLUTION
MEASUREMENT

HONDA | VICTOR DEVINE MOTORCYCLES

TECH

NXP

FUCHS

G-FORCE SUSPENSION

Replicade
Asset Control Systems

GRASS ROOTS

DASSAULT SYSTEMES

KeyShot
by Luxion

McGill
MOTORSPORT

rapidHARNESS

SCHAEFFLER

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