

Learning on the racetrack

Formula Student is the only motorsport competition aimed exclusively at university students. Lucia Forlini-Cataldo reports.

Motorsport, an often expensive and niche pastime, is not something that most people would associate with student life. Young people in motorsport are up-and-coming teenage racers who prioritize their sporting career over higher education. But the key figures that power the motorsport world – engineers, pit crew, team managers – come from a university background, and start creating their career path long before they have graduated.

There are many different ways for, say, an engineering student to gain experience in the field: getting involved in budget forms of motorsport like karting, volunteering at a local racing circuit at weekends, or even landing a summer internship with one of the sport's major players. Formula Student is a different way of getting hands-on experience, and one that never fails to impress on a CV. This is because Formula Student is the only opportunity university students have to be part of a

racing team that is run entirely by their peers, without an external supervising figure controlling the team's activities. Every step of the process, from designing the car to the logistics of getting it on the track, is entirely run by the students themselves.

Formula Student is an engineering competition where teams of students design a single-seater race car from scratch, according to a defined set of regulations, and compete in a series of tests including skid pad, sprint and endurance. But the on-track action only makes up half of the competition: the premise of Formula Student is that the team has to be run as though it was a start-up company, with plans for a limited production run of cars. A complete business plan has to be written and presented to a jury, including details on every single aspect from budget to logistics; the design plans of the car also have to be submitted to the jury. In the endurance and sprint tests, the cars do not race head to head, but complete timed laps around a cone track, usually set up in the runoff area of a corner. There are

Formula Student events across Europe and the world; the British competition, FSUK, takes place at Silverstone every summer.

Formula Student teams operate on a very tight schedule, with a very small margin of error. Every week of the academic year is scheduled from the start, to give managers and team leaders a clear overview of the work that lies ahead. The team is split into sub-teams that work on different aspects of the car such as chassis, powertrain, aerodynamics, marketing, and so on. Every sub-team has its own manager, who coordinates the activities of team members so that everyone, no matter their level of experience, can get involved in the project.

Because a brand new chassis has to be designed and put together every year, there are few parts of the car that can be carried over from the previous year's competition. Everything that goes on the car is either manufactured in-house, sometimes with the help of local companies as part of a sponsorship deal, or sourced from external manufacturers. Over the course of the year, the team moves



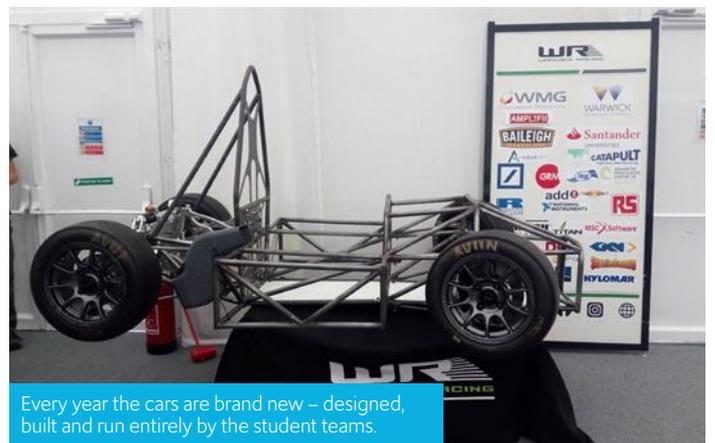
Author Lucia in the Warwick Racing Formula Student car at Silverstone.

from the initial design phase to putting the car together and, later, testing it in preparation for entering the competition.

The logistics involved in taking part in the event can be daunting even for a professional racing team, let alone a student-run one, and the amount of work that teams put into making everything



Formula Student cars throughout the years: a display of student-built racecars at FSUK 2019.



Every year the cars are brand new – designed, built and run entirely by the student teams.



run smoothly is truly impressive. This is especially true for teams coming from overseas; Formula Student competitions attract entrants from all over the world including Australia – Monash University’s team travel 10,000 miles every year to take part.

After arriving at Silverstone, the teams have to jump through a series of hoops before their car even gets on the track: checking that everything is in perfect working order and has survived the journey, passing the scrutineering inspection and attending safety briefings. The three days of competition are a test of the teams’ hard work and effort put in throughout the entire year; the teams present themselves to the jury in a professional, put-together way that almost makes you forget everyone in the room is still a student.

As is almost always the case in the world of motorsport, teams with access to more funding

and sponsorship jump ahead, but sometimes an underdog team with limited resources manages to make it up to the top of the results table, thanks to the students’ ability to get past hurdles and red tape. Last year, Team Primus won the “Spirit of Formula Student Award” simply for making it to the competition in the first place. They were the first ever team from Bangladesh, getting around the country’s strict laws limiting the power of imported engines, dealing with

sky-high tax and import charges, and funding the car entirely with their own money after failing to secure sponsorship.

This year’s event has turned virtual, focusing on the aspects of the competition that can be conducted remotely (such as the business presentation). The big question for Formula Student is, of course, what kind of impact the outbreak is going to have on teams and FS in general. The immediate future looks less than healthy: cash-strapped companies

becoming less and less willing to sponsor student racing teams, universities withdrawing funding when the lack of international students leaves a hole in their budget, racetracks struggling to get back in a position where they can host events. We do not know what the future holds for Formula Student, but we can only hope the resourcefulness that got the Team Primus all the way to Silverstone helps other students keep their teams afloat and look forward to competing again in 2021.

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