

**SHEFFIELD
FORMULA
RACING**

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OCTOBER NEWSLETTER



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FSUK CHAMPIONS!

As the popular football song goes “CHAMPIONES! CHAMPIONES! OLE OLE OLE!”. Our visit to Silverstone this summer was the best yet, Sheffield Formula Racing won a staggering 8 out of 13 trophies, including the all-important ‘Overall Winner’ - a team (and Formula Student) record! However, the journey to becoming the FSUK champions was no easy feat, SFR overcame plenty of setbacks along the way.

Just a couple of days before the competition, the team were completing engine ECU checks when midway through testing, the engine stopped. A team of hard-working volunteers then stayed in the lab until the early hours of the morning, first trying to find the source of the problem and then trying to fix it. Fortunately, none of the core components had failed, and everything was still intact, however the most noticeable feature was the oil colour - it had turned a ‘strawberry-milkshake’ pink! It was then quickly determined that a crack must have formed somewhere, oxidising the oil. The team used their incredible creativity to fix this by using ‘Radwell’ to seal the crack from the inside, similar to how you fix a crack in a radiator at home.

1st
35
IN FSUK
2021
OVERALL
WINNERS

“We race to learn, and we race to win. We know that to defend our title we will need to work hard, take risks, and try new things. We are really excited for what lies ahead!”

WELCOME BACK!

Sheffield Formula Racing are back for the start of the new academic year and we are looking to build off the progress we made last year and keep the momentum going.

We’ve kicked off the new academic year and gotten right back into the process of developing our 2022 car.

As restrictions have been lifted and the university has allowed in person lectures, we’re back to our usual design meetings in the Diamond! The team is fully embracing the return to normality and enjoying not talking to a screen!

Working together in person is already allowing us to reap the benefits, allowing more experienced team members to teach our younger recruits, and most importantly returning to our weekly biscuit rota (Editor’s note: the golden crunch creams are the best)! The greatest advantage is the improvement in communication between sub-teams.

Another important aspect that has returned is the social side to meetings. As well as working hard, we’re able to enjoy socialising with the team both during meetings and afterwards at the pub!



George Boufidis
2021/2022 Team Principal



OVERCOMING HURDLES

The team also ran into an issue with the BSPD (brake system plausibility device) caused by the difficulties of communication whilst working remotely, as a result this component was not manufactured. Luckily our talented team kept calm and worked together to design and build a bespoke BSPD in our garage during the competition! This resulted in us *finally* being able to get out on track!

Unfortunately, these setbacks resulted in us missing the first two events, Acceleration and Skidpan, as we were unable to get through scrutineering without the BSPD. So, with a mere 5 minutes left to start the Sprint event, Sheffield Formula Racing were back in the race! Driver Alex Smith charged down the circuit, getting the 8th fastest lap and earning us some points, a result the team were happy with. As per the event rules, Alex was allowed a second lap, and with 30 seconds remaining to start, he did what the professionals call “absolutely floored it”! His fantastic lap allowed SFR to leapfrog all the way into first, winning the event!

The next day (with an oil change, wary of our previous issues), SFR were ready for the arduous ‘Endurance’ event. The event requires teams to complete one 11km sprint with one driver, change drivers, then do another 11km sprint. However, the event is infamous for eliminating cars, where the majority of teams are unable to finish the event each year. Driver Ami Jerger launched SFR into a flying start, keeping good pace whilst not putting too much strain on the car. After a speedy driver change, Driver Alex Smith was back behind the wheel. He kept a steady pace and for the second time in the team’s history, completed the event!

Later in the evening the awards ceremony took place. Here we were presented with a staggering 8 trophies! Not only had we won the sprint event, but also got the fastest time on the endurance event! On top of this, we also won: Most efficient ICE; Overall Static Events winner; Design Event winner (2nd year vehicle); Overall Design Event winner; Overall Winner (2nd year vehicle); and the all-important Overall Winner.

None of this would have been possible without you, our sponsors, supporters, and fans. So, a massive thank you to you all and let's do it all again this year!

WHAT'S COMING...

- **Sponsorship Case Studies**
- **Technical Updates**
- **Team Interviews**
- **Alumni Interviews**
- **Meet the Team**

2022 AIMS & OBJECTIVES

Aim

Be crowned as the best UK team at FSUK 2022 and try to defend our title of FSUK champions

Objectives

Reduce mass and increase stiffness by designing and manufacturing our first ever carbon monocoque chassis, carbon wishbones, carbon anti-intrusion plate and hopefully carbon wheels.

Increase our downforce through optimising aero geometry, redesigning coolant layout and improving structural rigidity.

Improve our reliability by redesigning the engine loom and having greater oversight of FE analysis with a new “Head of Structures” team role.

Work on future development for an eventual transition to an electric powertrain in the coming years.

Interested in sponsoring us and helping us achieve our goals? Contact us at formula.student@sheffield.ac.uk



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