



# Monthly Brief

## April 2025

### TEAM PRINCIPAL OVERVIEW

April is a crucial month in the formula student timeline. The more progress and preparation made now, the easier the rest of the year becomes. From the start of April, formula student work becomes a balancing act with university work, as deadlines are due and exams approach. This is a challenge in project management as work packages must account for a drop in productivity but also a challenge in leadership. Exam period can be a very stressful time and people deal with it differently. When leading a project you must be empathetic and understand how much you can ask of people.

April kicked off with the release of the Lap Time Simulation (LTS) event rules. This is a theoretical sandbox event using the IPG CarMaker software to create the 'fastest' car. This is done through the selection of powertrain and aerodynamic types and the configuration of four systems: driver, suspension, brake system and vehicle driveline. With the foundation of the LTS team for the 2025 season we are aiming to secure as many points from this event as possible.

Sponsors continue to play a vital role in supporting the team. We received delivery of our Rock Oil sponsor package (bellow) and components funded by the RS Grass Roots award (right). Additionally several team members participated in a week-long welding course at Caterpillar, further enhancing our technical skills. Thank you to all our sponsors for their continued support.



I am very happy to announce that we won Engineering Challenge 4! These are mini events, held alongside the sim racing championship, focussing on different setup related challenges. This month the challenge involved following the process of creating a run sheet for an endurance race. Alongside a strong showing at the sim race of 6<sup>th</sup> and 11<sup>th</sup> we have moved up to 11<sup>th</sup> overall in the championship. We will be travelling down to Williams Esports for the final sim race of the championship on 15<sup>th</sup> July.

On the 24<sup>th</sup> of April the team submitted the 2025 Impact Attenuator (IA) datasheet. The IA is a vital safety component that absorbs energy and protects the driver in the event of a head-on collision. This submission proves the legality of the device to judges. Although this is a small document it is the culmination of work from our EV & Future Technologies team understanding and enacting the changes required to switch from a foam to a aluminium honeycomb impact attenuator.

The team is currently focussed on static events as submissions ramping up from May onwards. The first of these deadlines is the Engineering Design Report and Design Specification sheet. These aim to outline and justify key design decisions made during design and manufacture. Event programme images are also due later in the month.

**Callum Howes**  
UoL Racing Team Principal



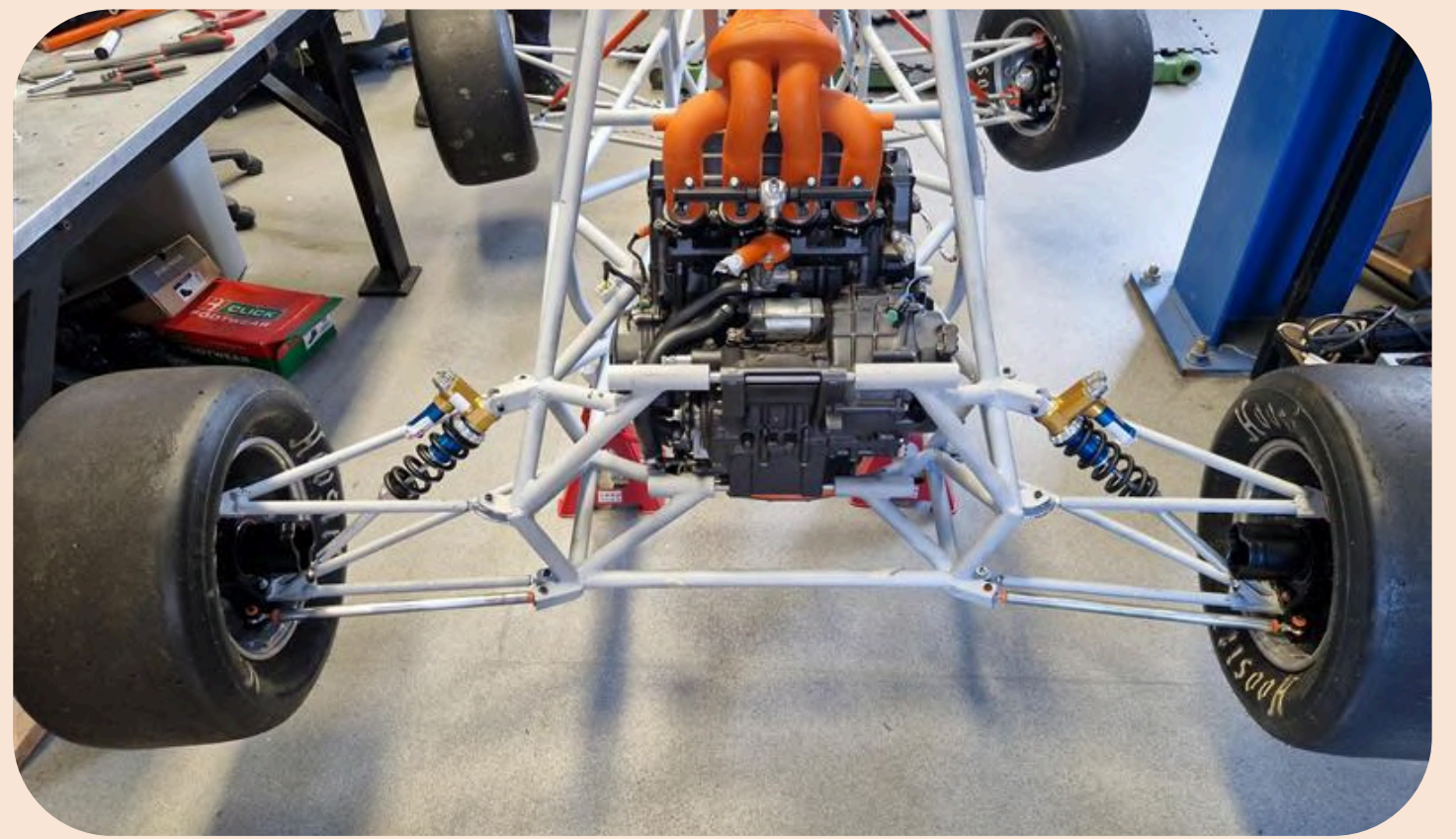


## CHIEF ENGINEERS DEBRIEF

This month's been all about getting ready for the Spec Sheet and Engineering Design Report submission, which is due in early May. It's meant a big push across all the technical sub-teams to pull together as much detail as possible. Progress has been building steadily, and things are starting to come together.

In other good news, the ECU has made its way back from Australia, which means the controls team can finally get stuck into validating the loom and sensor package. Perfect timing too, as we also received a big delivery of connectors and other electrical components, all funded through the RS Grassroots competition—a nice win for the team. We've also started installing the drivetrain, and that's expected to be wrapped up by the end of the month. Getting it in place was a big step, as it let us properly check the alignment and fit of the new diff hanger mounts, which have been a key design update this year.

Meanwhile, the powertrain team has been working closely with Klarius on the exhaust system. They've sent through some of their sealing components for us to test, and we've been trial fitting them on the engine to see how everything lines up.



The team has had great ongoing support from KRAM Sheet Metal, who've been a huge help in getting a range of components made. At the moment, they're working with us on a few key projects: the fuel tank is currently being welded, the pedal box is nearly ready to go into manufacture, and the firewall is already in the process of being made. Their input has made a big difference in helping us move things forward.

Elsewhere, the EV & Future Tech team is kicking off some early research into using carbon fibre for track rods and wishbones. This is mostly a fact-finding mission for now, with the hope of running these components on the car for the 2025/26 season. Part of the plan is to destructively test a few sample track rods to see how they hold up and figure out if they're a viable option going forward.

In a slightly less serious but still exciting update—we've taken delivery of the tyres we'll be running at competition in July. Seeing them arrive was a bit of a wake-up call about how close things are getting. It's a small thing, but it made everything feel more real and definitely added a bit of energy around the workshop.

**Dylan Crawford**  
UoL Racing Chief Engineer



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