



# Monthly Brief

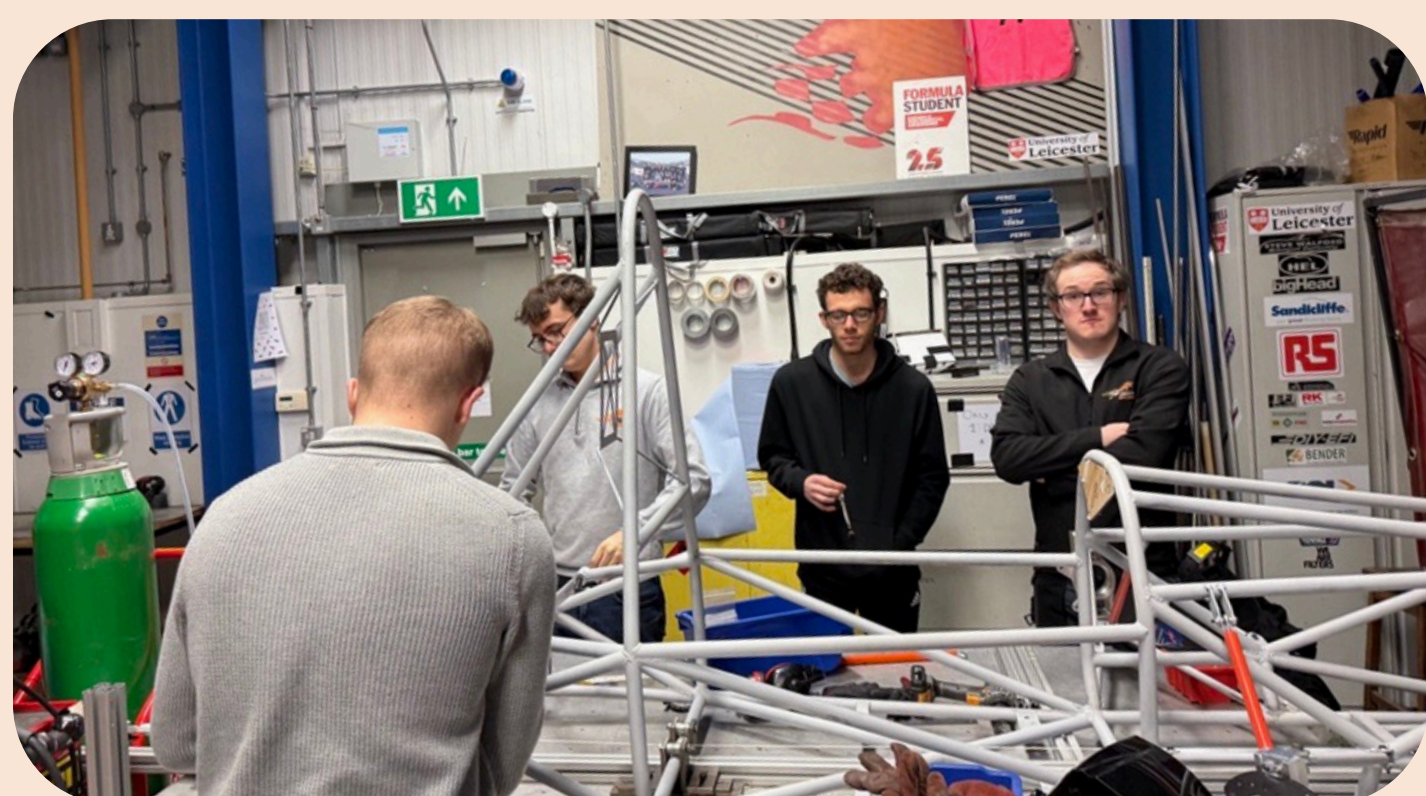
## November 2024

### TEAM PRINCIPAL OVERVIEW

November kicked off with the IMECHE releasing the rules and key dates document for the FSUK25 competition. These are two very important documents for all Formula Student teams as it allows technical objectives and timelines to be finalised based on solid deadlines. The most important takeaway was the confirmation of competition taking place 16th - 20th July 2025 (inclusive) at Silverstone.

This month saw a lot of opportunity with some hands-on car build (below), arguably the most exciting part of Formula Student for a lot of people. It has been very enjoyable to see new faces in the garage getting involved in chassis preparation for suspension tabs and learning key skills from our more experienced team members.

We have persisted with our focus on team development with the continuation of the much loved UoL Racing Pub Quiz as well as a technical talk from our CAD & Integration Team Lead Vlad Gherzum. This focussed on learning how to use our cloud based CAD software 3D Experience which gives all members of the team access to our centralised CAD model. The re-introduction of this software to the team has already shown its worth when integrating systems to the master model across all sub-teams.



In recognition of their continued support and sponsorship, Caterpillar invited our Team Leads to their factory for a tour and to meet everyone we would be working with over the coming year (above). We presented a debrief of our FSUK24 season and our plans for the coming season. This opportunity allowed our Team Leads to practice their presentational skills and gain insightful feedback from senior engineers and managers at CAT. We would like to thank CATERPILLAR for inviting us down and agreeing to continue support for the coming season.

In another milestone of the month, UoL Racing has made its return to the FS Sim Racing competition. Having competed previously for the FSUK23 season the team has returned to the field under car number #48. The sim racing competition consists of five races across the year streamed live on YouTube and allows the team to promote themselves in a competitive environment beyond the main FS event. Round 1 concluded with both of our drivers finishing 23rd out of 56 teams.

This Monthly Brief concludes the end of a very productive month for the team seeing many technical deadlines being hit meaning the team is still on track for the coveted “rolling chassis by Christmas” objective which has so far escaped the team in previous years. However, with December now upon us and Christmas break approaching quickly the team is ready to put in the effort to put in a good place when we pick up again in January

**Callum Howes**  
UoL Racing Team Principal

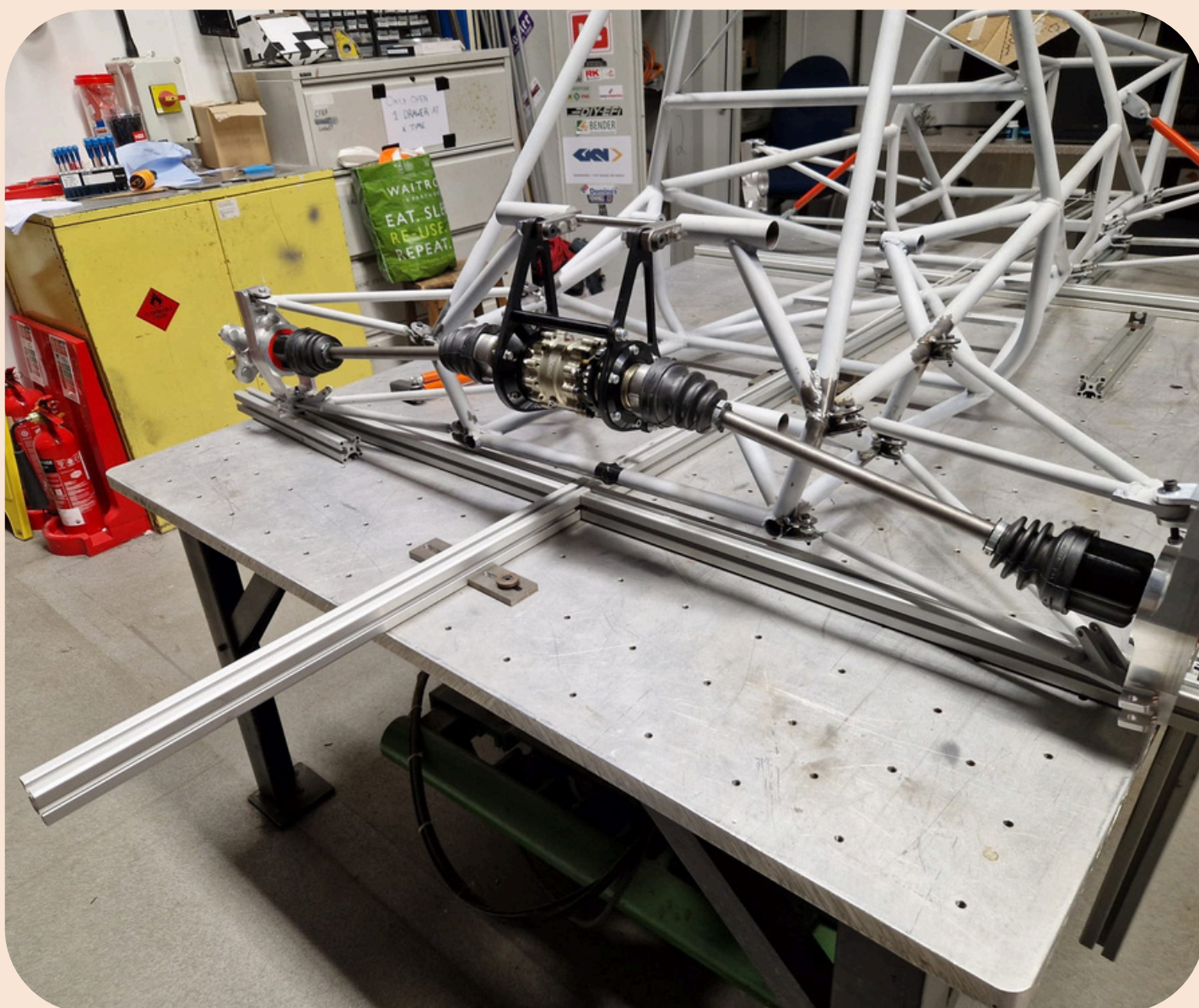


## CHIEF ENGINEERS DEBRIEF

This month saw the release of the Formula Student UK 2025 rulebook, whilst we largely escape unscathed, there are some areas where we must change to accommodate the rules.

Considerable progress has been made with the wishbone tabs being welded onto the chassis. Whilst this is impressive progress for this time of year it has also highlighted a plethora of issues concerning the parts handed over from the previous year. These issues surround a new inner wheel clearance rule between the wheel rim, rotating parts and static parts. This problem has been largely worse in CAD than to real life however, the final details of the solution are coming together with the team utilising 3D scanning to inform the redesigns of our hubs and uprights.

Prototyping has begun regarding the new, lower profile steering wheel with a selection of designs being manufactured at KRAM Sheet Metals. With our cockpit geometry majorly reduced and our seat much more reclined it produces issues with both ensuring the driver has enough space to both steer and shift.



The team have been working closely with Klarius to help design and manufacture a new exhaust system. The first parts of our new exhaust system have been sent off for manufacture this week just past with a view to get this component manufactured in the new year.

We have been working closely with Caterpillar on several components including getting our new airbox 3D printed. This new design will see our airbox integrate fuel rail mounting for the first time. Another project we are working on with CAT is modelling our radiator to allow us to inform our decision on which radiator to run for this season.

Initial CFD simulations have been developed to validate the cars aerodynamic components. These simulations are performed to ensure that our aerodynamic devices produce downforce and work to improve our cars performance. The team is currently conducting an outreach initiative and actively seeking support on mould making and composite manufacture.

The team is in a very good place technically and aims to push towards finishing the rolling chassis by the Christmas break.

**Dylan Crawford**

UoL Racing Chief Engineer



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