



Monthly Brief

December 2024

TEAM PRINCIPAL OVERVIEW

Happy new year! December's monthly brief marks the end of 2024; a year full of ups and downs for the team.

2024 kicked off in the midst of development of LR03 (our third ICE vehicle) for the FSUK2024 season. We found ourselves at a low point with delays to our chassis and suspension design being finalised as well as the late decision to manufacture the chassis in house due to insufficient funding for outsourcing.

This led to the difficult decision to switch to Concept Class for the FSUK competition and allow continued development of what would now be LR04 without the pressure of an unachievable deadline.

FSUK2024 competition was a highlight of the year which, despite the late class change, saw the team place 3rd in the design event (right). An all time best. Many of the team, who attended competition for the first time, left with a new found passion and motivation to make sure we arrive at Silverstone next year with a competitive car.



When management of the team was officially handed to myself and Dylan in August we arrived with an in depth project plan and an aim to make technical goals second to team development. Since then we have been very happy with how far many of our team members have progressed in just a few months and how the team atmosphere has made a shift to cohesion and unity. With technical development meeting the project plan deadlines, we are in a very good place going into 2025 and I couldn't be any happier with the team.

December has been a month of two halves with a busy few weeks at the start to prepare for the shutdown over the Christmas period. It started off with the submission of the design concept specification document officially marking our registration to the FSUK2025 FS class competition.

Our sim racing team competed in the second race of the year with our two drivers finishing 18th and 10th in the first and second class servers respectfully. The team also entered the engineering challenge which is a competition that runs parallel to the sim racing series to use data informed decision making to create a car setup. We submitted a strong entry achieving 10th overall.

The year was concluded in style with (of course) a team social of bowling and mini golf (left). It was a great way to end the year off with everyone in high spirits and ready to come back refreshed in January.

Callum Howes
UoL Racing Team Principal



CHIEF ENGINEERS DEBRIEF

December has been a short, yet intense, period with in-person work on the car only happening in the first two weeks of the month. In this short time a lot has been achieved with the steering system installed, the engine mounts welded up and the final suspension mounts added onto the car. This leaves us ready to get the engine into the chassis early in the new year.

Designs for both the new oil sump and air intake have been finalised with both components sent off for manufacture at Ogle Models. These parts will be manufactured using the selective laser sintered (SLS) process. The SLS process is a form of additive manufacture somewhat like 3D printing however SLS allows for models to be manufactured with no external or internal supports. Using this process allows our design engineers absolute design freedom when designing both components.

These engine ancillaries will be put through their paces on the engine test stand before we install them in context in the chassis. These engine runs will allow us to develop a roadmap for engine dyno testing all dependant on the success of these new components.



Development on a new cable shifter concept has been making good progress. The redesign of this system is due to the extremely tight packaging within the cockpit of the car. This design will use 2 push/pull cables to replace the solid linkage. The team are currently reworking the design having 3d printed the first concept.

The controls team, led by Maks Vasiljevs, have finished development of the cars BSPD board and are working closely with Eurocircuits to manufacture our shutdown circuit board. Controls this year have really stepped up completing their projects ahead of schedule with an aim to thoroughly test and understand each component before it is integrated into the car.

On a wider note, the year-end provides a good chance to reflect on the 4 months I've had in this role. Coming into this role I laid out a set of aims I wanted to achieve. Firstly, I wanted to ensure that people enjoyed coming to work on the car and the work environment was one where anyone could question what we were doing. Secondly, I wanted people to learn how to do this once Callum and I are gone. Whilst our success will ultimately be judged in July, working towards both have been immensely rewarding. and this is something I look forward to continuing upon the teams return in the new year.

Dylan Crawford

UoL Racing Chief Engineer



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