



Formula Student Brief

20/11/2022

Week 17 Progress Report

[University of Leicester Racing](#)

The Lightning McQueen Edition

The team has been making a lot of steady progress over these past few weeks before the new chassis arrives – the calm before the storm! Our main aim is to test the current car as much as possible and iron out any issues before we start work on the new iteration for our FSUK 2023 entry. Along with this, we are producing documentation for all lessons learnt & changes made where possible for good transfer of knowledge.

The first step in our FSUK 2023 entry has been selecting the car number. The unanimous decision was made to select 95 – the number adorned by Lightning McQueen from Cars, of course...Perhaps the team will also adopt the mantra “I am Speed”? We are also working on the first submission, the Design Concept Specification.

Our new recruits will be joining us for the first time this coming Wednesday, so we look forward to welcoming them to the team! We will provide them with training to help them settle into the team and team leads will be delivering workshops based around the technical content.

Chassis & Ergo

- Wishbone mounts have now been fabricated
- Material for the chassis is being sorted out & delivery arranged
- Pedal box redesign is coming along well

Suspension

- FEA is being carried out the new shock extenders
 - To be used to determine material choice, confirm acceptable factor of safety
- Looking into potential changes to wishbone endplate design & appropriate FEA setup
- Material for wishbones is being sourced
- New rod end selection for the wishbones is ongoing
- Lotus Shark licenses are being renewed

Aero and Bodywork

- In touch with Triumph to organize a visit to the factory (and a potential sponsorship!)
- Organizing visit to KS composites with the FS car
- Diffuser CAD coming along well, with aim for initial model by the end of term

- Investigating making the side panels into 1 piece as opposed to current ones

Powertrain

- Working on refresh of the fuel system
 - Sourcing new fuel pump
 - Documentation of new fuel system
 - Team has a vision for new fuel rail system
- Looking into acquiring relevant datasheets
- Intake redesign – in progress

Control Systems

- Main focus is getting ECU ready for test day
- Looking into sourcing parts for Lambda integration
- Contacted Hackspace regarding potential sponsorship – team will be visiting this coming week
- Meeting with DIY EFI to discuss engine sensors and engine loom

CAD & Integration

- New recruits are settling into the subteam

Test Ops

- In talks with the subteams to organise low speed testing
- Devising plan to test all subsystems on this car before new iteration
- Chasing up insurance information regarding testing & working on documentation detailing test days
- Hired new recruits for vehicle dynamics & simulation

Business

- Devised new framework for reaching out to sponsors and companies
- Putting together list of local engineering companies that the team could get in touch with
- Working on designing new banners for the team

- Meeting set up with Verplas to discuss sponsorships & 3D printing facilities

Wellbeing

- IPA-1 testing is now ready to be used for the new recruits
- Looking into application of vision sciences for driver training
- In conversation with Head of Life Sciences to promote FS to other departments in the university
- Looking into psychosocial risk assessment to assess the FS workplace

Thank you for all your hard work and support.

Monica Peeris

“Success is not final; failure is not fatal. It’s the courage to continue that counts.”



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