



Formula Student Brief

28/10/2022

Week 14 Progress Report

University of Leicester Racing

Introduction

Following the team's most successful entry to date at FSUK2022, work is well underway for the FSUK2023 competition! Our experience over the past year has equipped us with the knowledge and confidence to power ahead with the new iteration of the car. Shortly after the competition, the team got right back to work. Over the summer, we had a post season review to discuss and document all the lessons learnt in the past year and outline the next steps.

The first of these steps being handing over to the new management with myself (Monica Peeris) taking over as Team Principal and Kris Bell as Chief Engineer. A big thank you to the previous management, Arturs Mikals (Team Principal) and Matthew Jeffries (Chief Engineer) for revitalizing the project and leading it to such great success – we hope to build on this success. All sub team leaders have been selected and settled into their roles. Recruitment for other roles across the team is now also in full swing with a big focus on setting up the future team and ensuring good transfer of knowledge.

We look forward to sharing our progress through these weekly briefs.

The Team



Monica Peeris
Team Principal



Morgan Harvard
Suspension Lead



Cameron Slater
Test Operations Lead



Kris Bell
Chief Engineer



Jonathan Innocent
Aerodynamics Lead



Anii Pathak
Wellness Lead



Ronek Bijur
Controls Lead



Isaac Waton
Chassis & Ergo Lead



Alex Brigden
Business Lead



James Critchley
Powertrain Lead



Harry Wem
Car Build Lead

Chassis & Ergo

- Conducted torsional stiffness test on the current chassis & produced report
 - Improvements have been noted for future testing
- Material has been ordered for the suspension mounts
- Design for new chassis has been finalized
 - Changes to the front bulkhead regarding direct acting front suspension
 - Minor changes to rear rollhoop
- Potential fabricators have been contacted
 - Tubebender & Welding Capacity are the main considerations
 - Drawings will be produced in the coming week
- New pedal box is being designed

Suspension

- Procurement of tyres and new rims is being investigated
- Created documentation for calculating centre of mass
- Old bearings in bell cranks have been changed
- Changes to suspension geometry are being finalized
- Collet tool for the shocks is being designed
- Looking into methods of finding centre of gravity/height

Aero and Bodywork

- Contacted sponsors regarding new fasteners (Dzus)
- Organized a meeting with current sponsor, KS composites for a catch up
- Recruited 3rd years to undertake CFD projects based on judges' advice from competition
- Looking into developing access panels with the suspension team

Powertrain

- All relevant fittings and sensors for the rolling road have been selected
- In contact with A1 hydraulics for sponsorship
- New intake is being designed

Control Systems

- Temporary loom for the rolling road is in place
- Engine fired up successfully this week
- Documentation of issues from competition is currently being worked on

CAD & Integration

- Master model is being updated to reflect current car
- New master model is also being created for new iteration of the car

Test Ops

- Organized a rolling road session with Steve Walford
- Devised list of tests to run on any track session with relevant sub teams & produced preliminary test plan
- Looking into acquiring a track for testing
- Several items for testing have been purchased such as scales & sound meters

Business

- Recruited a new business team lead
- Focused on recruiting members for the team

Wellbeing

This sub team is new addition to our team which will focus on the wellbeing of the members on the team and methods to improve our workplace for increased productivity and learning.

- Created a psychometric test to understand team members better and explore the most effective method of working for them
- Risk assessment of the workplace is being devised
- Conducted a review of the previous season with the team and produced documentation detailing improvements to be made

Thank you for all of your hard work and support.

Monica Peeris

“You win some, lose some, and wreck some.” ~ Dale Earnhardt

