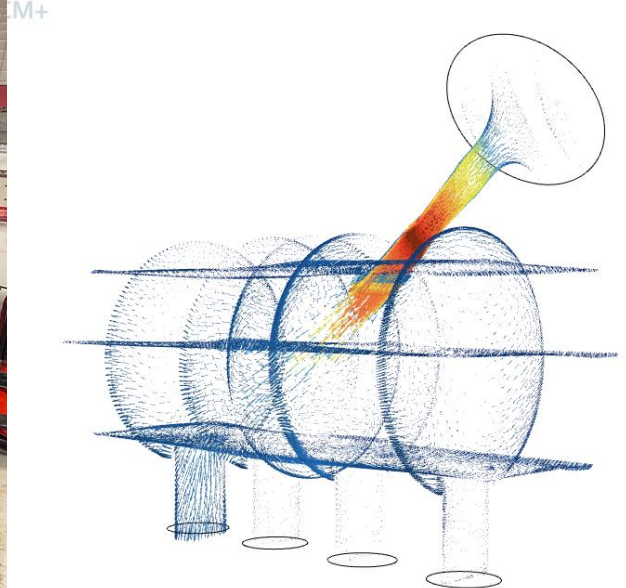
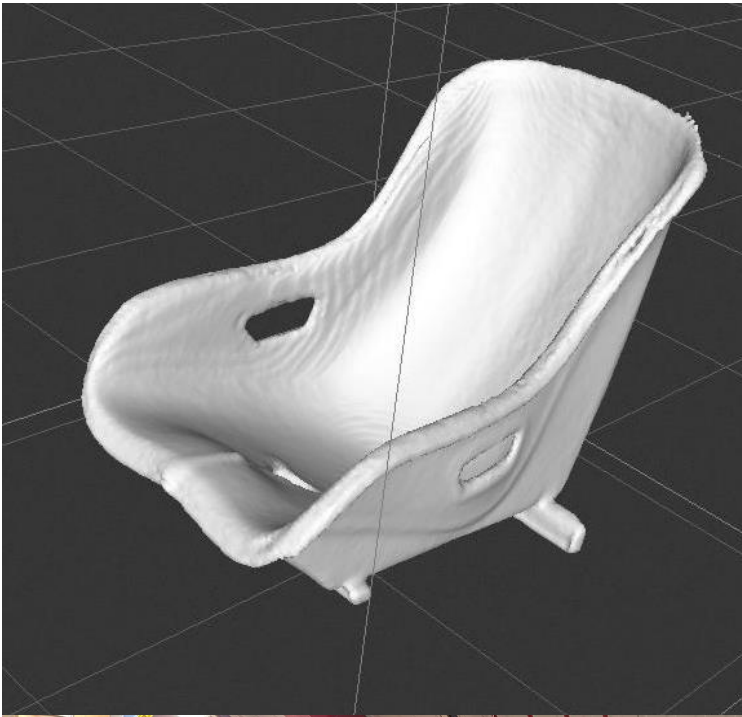




Formula Student Brief

04/11/2022

Week 19 Progress Report

University of Leicester Racing

Picking Up Pace

In the previous week, we welcomed all of the new recruits onto the team – who are now getting to grips with their relevant subteams and programs the team utilizes. We provided our new recruits with a rundown of the team, the competition and our goals. Further to that, this past week we submitted the Design Concept Specification and sent off our application for FS Awards 2023.

Thanks to an old XBOX Kinect sensor from one of our team members, the team has also tried their hand at some 3D scanning with some good results (seat on the cover) – the CAD & Integration team are now looking at how we can use this best to supplement our CAD modelling.

Additionally, University of Leicester has been represented in the FS Sim racing for this first time this year. Round 1 kicked off this Saturday, with our 2 sim drivers Ronek Bijur and Callum Grisdale doing pretty well! We look forward to the next race – best of luck to our drivers!

There has been a lot of great progress from the team in the last 2 weeks despite the very busy period of the year in terms of university deadlines. With another week left in the term, we aim to push hard to the end & look forward to a small break before the fun starts with the new chassis in the new year!

Chassis & Ergo

- Created material inventory of all available material in the garage
- Material evaluation for parts yet to made to identify whether material is available or needs to be sourced
- Currently in manufacture: inboard radiator mounts, steering column bearing housing, Anti Intrusion Plate and headrest
- Outboard radiator mounts are being designed
- Shifter, plug inserts – drawings are being made
- Moment of Inertia calculations for seat and pedal rails

Suspension

- New wishbone design and FEA completed
- Christmas tree drawings under final review and endplate drawings in the works
- New shock extender drawings are completed and ready for manufacture
- New wishbone bearings have arrived
- Material is being ordered for components

- New members of the team are currently researching making our own alignment rig and heat rejection of the brake pads

Aero and Bodywork

- Produced documentation for test team detailing possible tests to run and equipment required
- Assessed the feasibility of carbon fiber or aluminum side panels – decided to go with carbon fiber
- Team visit to KS composites with the car has been confirmed!

Powertrain

- O rings sourced for injectors and intake
- CFD model of current intake is completed with preliminary data obtained to be processed
- Developing axle to diff spacer with integrated wheel speed sensors
- Looking into acquiring silencer or design silencer in house
- Coolant hoses are being looked into
- Fuel system refresh is being developed
- New fuel regulator sourced

Control Systems

- Creating documentation for engine run procedures detailing symptoms of potential issues and fixes
- New members are getting up to speed with the previous telemetry system
 - Development of the telemetry system is planned for over the christmas break

Test Ops

- Strain gauges (for testing chassis stiffness, suspension members etc) have been ordered, Arduino script in the works to process the data
- Vehicle dynamics & simulation members are learning the required software
- Scales have arrived to measure weight distribution
- Plans are in place for acquiring insurance for test days – checklists are being created for different test items

Business

- In talks with Caffeine and Machine to take our car down!
- Creating new team values document with our core values, mission statements & goals
- In process of getting access to our website to update it
- Recruitment for business team is now also underway

Wellbeing

- IPA testing has been administered to most of our new recruits who will receive personalized reports with their results

Thank you for all your hard work and support.

Monica Peeris

“If everyone is moving forward together, then success takes care of itself.”



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