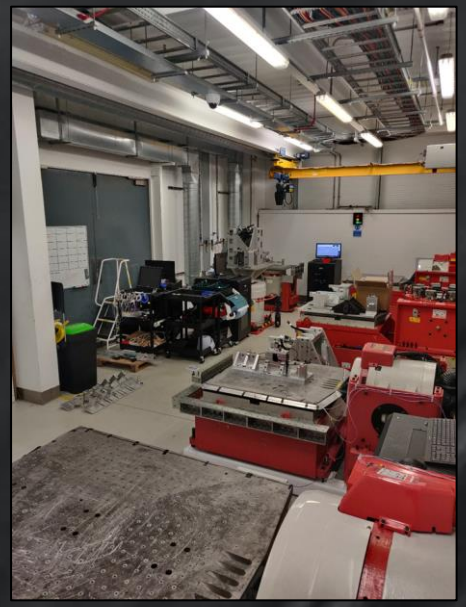
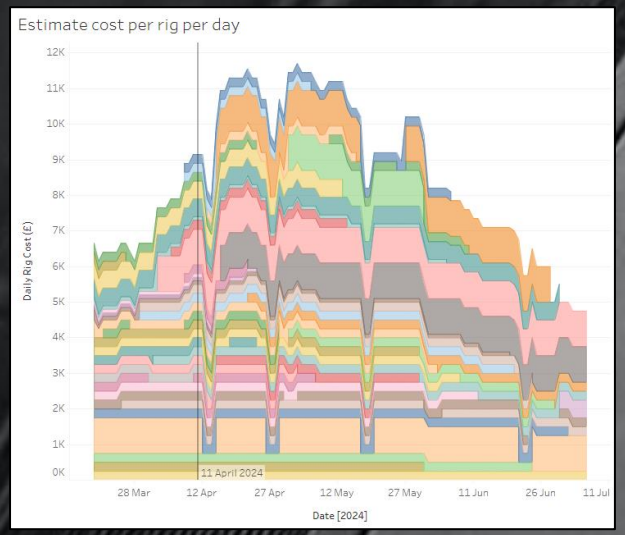
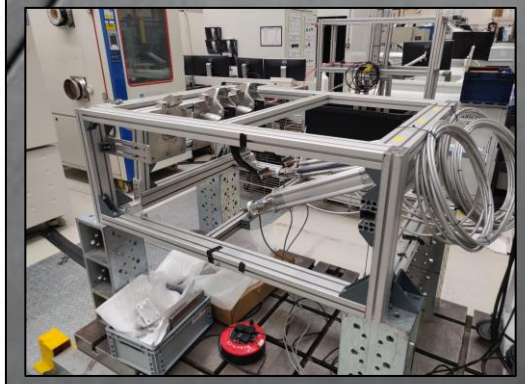
FINTAN LYONS – YEAR IN INDUSTRY – JAGUAR LAND ROVER

Component System Testing (CST)

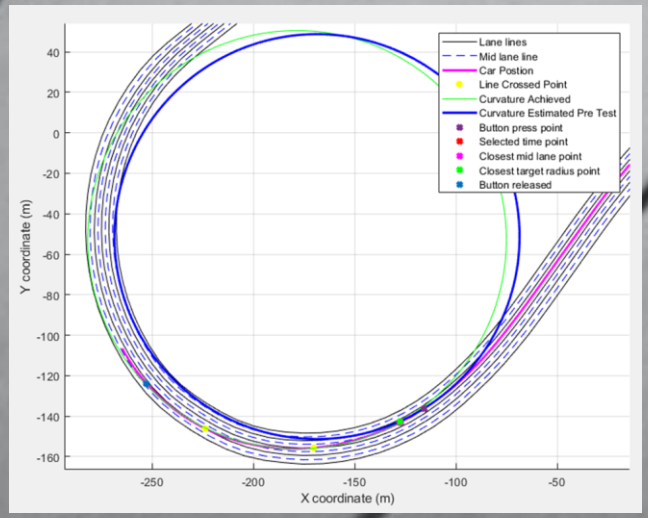


CST is my home team, within which I have spent most of my year in industry. I have worked within 2 teams in CST, the vibration team and the key life testing team as a test engineer. This involves, procuring test equipment and fixtures, setting up tests, coordinating with technicians, running tests, logging progress, resolving issues and writing test reports. I've learnt how to operate vibration shakers, PLC controllers, to use DART, Jira, CATMAN, Tableau and PLC programming software. Throughout my time in CST, I have come across a variety of test components and developed my understanding vehicle systems. Within CST I also developed python code to extract Jira data hourly to Big Query, to be read by tableau to enable better test management. I created a tableau dashboard which predicts the near future costs of running over 1500 tests.





Advanced Automated Driving Motion Control System (AADMC)



Within AADMC, I developed an understanding of how a vehicle electronically operates. I learnt how to use the data analysis tools CANalyser, CANape and MATLAB. One of the key responsibilities of my team with AADMC was to assist other with testing, as such I became well acquainted with vehicle logging and calibration tools (from Vector), risk assessments, how to flash vehicles and the use diagnostic tools to find vehicle faults. A large project we were exploring during my placement was the feasibility of using the brakes to steer as a safety ADAS feature by testing the effectiveness of a brake to steer prototype car. I developed MATLAB code to analyse the vehicles performance after tests using a GPAS sensor and known lane maker locations.

Steer by Wire (SbW)

SbW is a research team within Chassis which proposes introducing SbW to the 2030 model cars. Within SbW, I assisted with the brake to steer project and employed MATLAB to process full vehicle simulation test to identify controllability of different failure injections. I helped the team identify the best method to develop the project. I developed an extensive understanding of the SbW concept and the challenges that need to be overcome to realise the project, such as functional safety.