

Formula Student Germany 2009

Full Blue Racing

Thursday: Today turned into the predicted long slog for Full Blue Racing, with static events and the team attempting to complete the noise and brake tests. The static events are now completed, and the team has heard its result in the business presentation – 39th, meaning the team has retained a similar position to that achieved in Silverstone. The team entered the design event with confidence, the car having passed scrutineering pre-design for the first time in the team's history. This was unfortunately overshadowed by a design judge (not involved in our judging process) exerting excessive force on the steering system and causing damage that required a trip back to scrutineering. The cost event went more smoothly, and the team is awaiting the results of design and cost tomorrow. The 90 minutes consumed by fixing the steering and re-scrutineering further compounded the problems the team were having in the engine test area. With the normal engine tuning 'guru' still stranded in Belgium, the team has struggled to get the engine to run. Despite the team's best efforts and the generous help of numerous other teams (many thanks to Brunel and Birmingham in particular) the team is still in a stalemate at close of play and the issues are threatening once again to prevent the team running in Saturday morning's events. This problem can be linked back to a lack of any facilities for testing the engine and powertrain and hence a reliance of the team tuning the engine in 'no-load' tests in the finished car. Work is already underway to improve this situation for next year and any offers of help are welcome! So all in all a tough day for the team – a lengthy fault finding process is underway to try and maximise our chances in the morning, having just 4 hours to get through noise and brake tests if we are to compete in the dynamic events taking place. We are not beaten yet...

Friday: The team has placed 2nd in the cost event at Hockenheim! This event judges the team on its ability to produce a cost effective vehicle, and to document the costs of the vehicle's fabrication and construction. The team had to submit a detailed cost report, documenting materials, processes and assembly tasks for the whole car – even down to the last nut, bolt and washer! At the competition, the team then comes under scrutiny from a panel of judges regarding this cost report and the final car, before presenting on a deep dive topic. This year's topic focussed on cutting the cost of the car by 20% – a difficult task for what is already the cheapest car in the field! The judges were impressed with the level of detail in the report, and the presentation was praised for 'covering everything'. This will be the first time that the team has brought home silverware from a competition, and the team now looks forward to gathering more in the future by building on this success.

Saturday: Full Blue Racing has been plagued with engine troubles, putting the team out of the competition. Following a trying day on Friday, the team was confident that Saturday would be better and set to work intent on passing noise and brake in time to compete on Sunday. With an engine that refused to start, the team performed a systematic check of the powertrain and electrical system to identify the problem. Over time it became clear that the ignition coils were at fault and hence the engine was not receiving a big enough spark to ignite the fuel in the cylinders. The team runs an uncommon 'homebrew' ECU due to budget constraints and requires ignition coils that are not used by many teams. As always the team was not beaten and whilst a group searched for new coils, 2 other groups investigated opportunities for implementing alternative solutions and attempted to identify the original cause of the problems. Eventually, the problem was identified as a grounding issue in the electrical system, only becoming apparent at the high current levels drawn by the coils. This was fixed and the team were set to try noise with just 10 minutes of scrutineering time

remaining. At this point the absence of our engine tuner came back to haunt us and we were unable to get the engine to run in time to pass these tests. The rules for FSG have changed this year, meaning that the team is no longer able to pass scrutineering on Sunday – this has unfortunately meant that the team cannot run this weekend. The team is obviously devastated by this news, but is confident that the problem now simply lies in the tuning of the engine and could easily be solved with more time and better engine testing facilities. So the team now looks forward to next year – today will be spent soaking up the atmosphere, looking for ideas from other teams and of course lending a hand wherever possible.