

# TEAM DEFIANZ RACING



## NEWSLETTER | FEB 2020

**DR**



# SNAP OF THE MONTH



Focused on the race.

# TEAM UPDATES



- The team has begun the manufacturing phase for the car and is seeing to the completion of manufacturing of chassis.
- We have retained our previous sponsor Motul and have welcomed new members into our board of sponsors: c&r Racing.
- Our corporate department is working tirelessly on meeting with potential new sponsors for material and funds procurement.

# DEPARTMENTAL UPDATES

## VEHICLE DYNAMICS



Resource planning and optimization was the main focus of the vehicle dynamics department for the previous month.

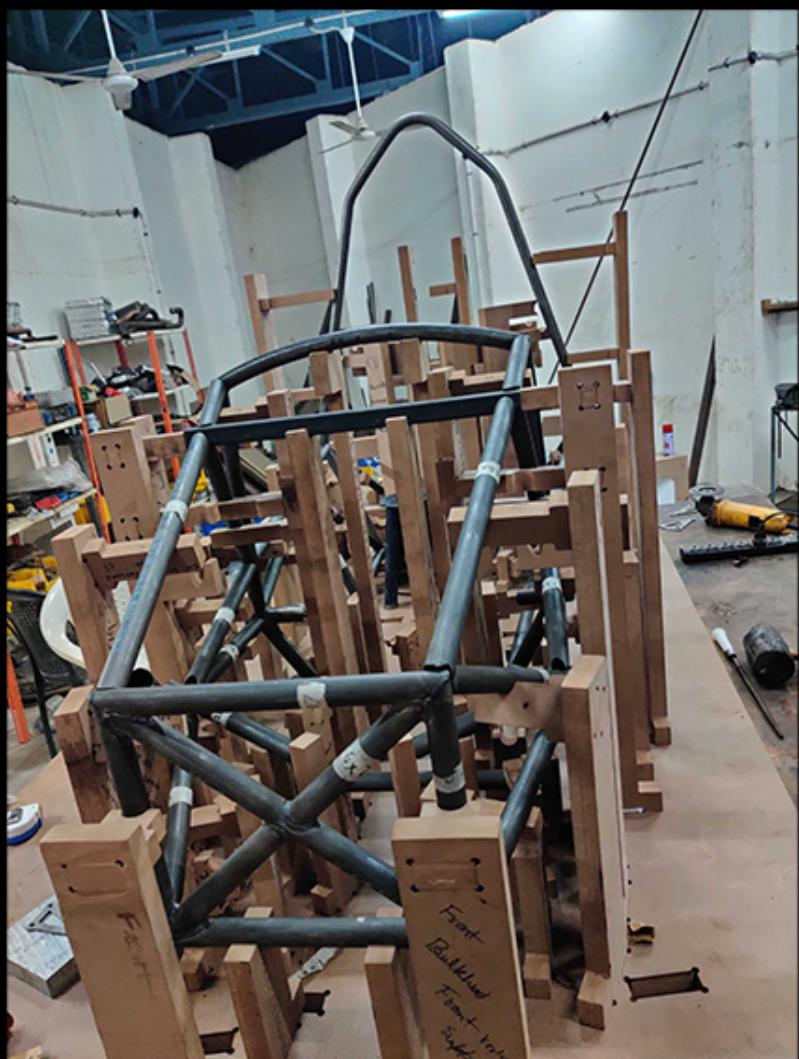
Most of the time was spent planning for the upcoming manufacturing through an organized manufacturing sheet. Raw material was purchased and some initial machining done for a few components like the ARB. The department also refined its design for the brake system and steering setup.

## AERODYNAMICS



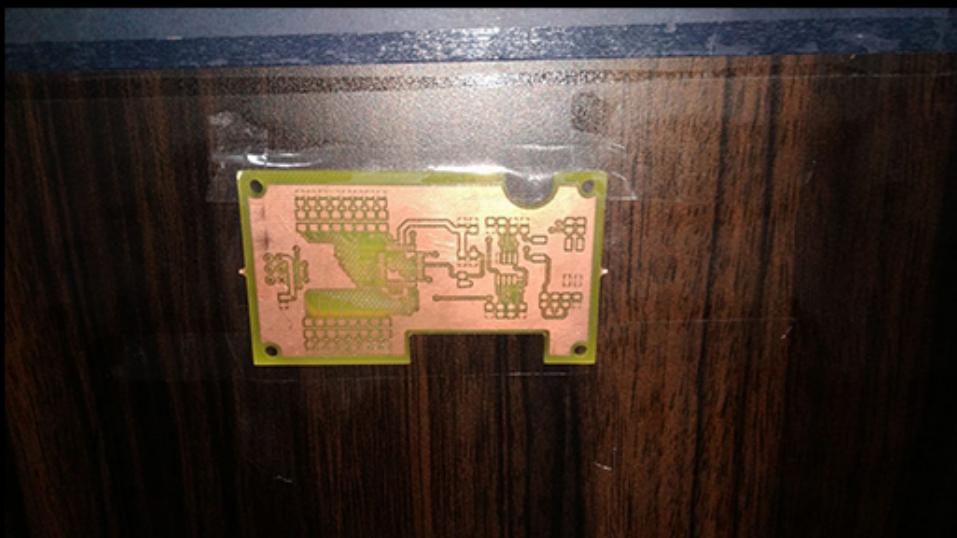
The manufacturing phase of the whole Aerodynamics package has begun as the material procurement is still underway. Testing is being undertaken on various types of moulds to improve our manufacturing techniques. On the CFD side, aero maps relating ride height to flow coefficients are being made for use during testing to better understand the performance and balance of the aerodynamic devices.

# CHASSIS



The department shifted from design to manufacturing phase. Laser profile cutting of chassis chromoly tubes was done with the help of our sponsor METAFIL. Chassis jigs were made by 2d routing of MDF sheets. The department faced the issue of tolerance of jig to be fitted in base mdf, so the base jig was routed twice. Later on, assembly of jigs was done, and multiple extra supports were later routed for verification of correct position of inboards. Tubes have been assembled on the jigs and welding is under process.

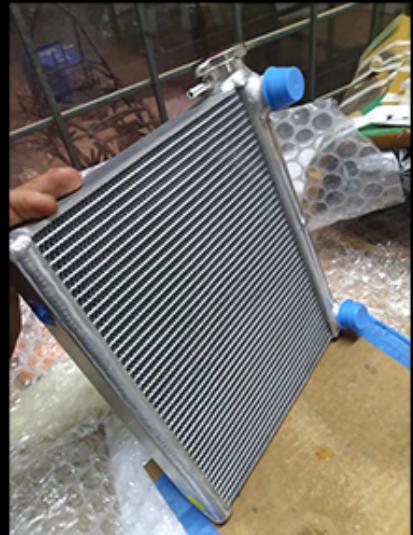
# SOFTWARE & ELECTRONICS



The department is currently working on CAN protocol for data transmission from the ECU.

The team is putting their efforts in real time telemetry and for that, they have designed a web server where all the data from various sensors will be uploaded and saved. Socket.io and Node.js were used for this purpose. Plotly is being used for plotting real time values of sensors. The next step would be to print out customised PCBs .

# POWERTRAIN



The department's goals for this month included the objective to find a cost effective 3D printing service for our intake system. A new custom made radiator was received through our collaboration with C and R. Currently, issues are being faced in dyno session. The highlighted issue is that RPM peaks to 7000-8000 within 10-15% throttle in neutral and within 25% throttle in 3 and 4th gear. The department is working relentlessly to rectify the issue. For a reliable wiring system, design is being undertaken on Solidworks using its routing feature.

# KNOW THE MEMBERS

## SOURAV PAL C.O.E.- 1<sup>ST</sup>YEAR



I'm in the electronics and software department at Team Defianz Racing. My hobbies include table tennis, listening to music and watching movies. I see myself as a passionate learner who is out to explore to learn new areas and learn from experiences.

Being a student of computer engineering, my world revolves around coding. Team Defianz has given me an opportunity to learn how to amalgamate coding skills in building a race car. When I initially heard about such an opportunity, I instantly knew that I did not want to let go of this. I believe TDR will help me explore my interest and build me into a more refined coder alongside helping me become a better individual by virtue of values like team spirit which runs rife through the team.

# ROLLING BACK THE DAYS...



JAYESH KHATRI  
M.A.M.(2015)

I joined the team as a member in the Powertrain department in September 2012. There was a lot to learn and I was enthusiastic for the opportunity. The whole project provided an insight on how things actually work in a team or a company. From my masters to PhD applications and in all the interviews, experience from working in the team has helped one way or another. Apart from the work, your fellow teammates become your friends – who constantly support you, motivate you and help you get back on the track when lost – in that I was very fortunate. Defianz Racing was the best thing that happened to me at DTU and I shall forever hold it as an important part of my life.

For the current team: Make sure to have a clear and structured transfer of knowledge for the team to build upon the strengths and learn from the weaknesses. TDR is a great platform to learn and hone both your professional and soft skills that are going to help you through out. So, exploit this opportunity, trust the process and keep going. All the best!

Passion. Perseverance. Optimism.



# #CANDID



# THANKING OUR SPONSORS

## FEATURED

*Motul* is a global French company which manufacturers, develops and distributes lubricants for engines and for the industry.

They've been supporting our team since 2016 and for that we are very grateful to them.



# CONTACT US

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