The first EV challenge

Based on our strategy, we disperse costs reasonably and highlight the performance in the design to equip our car with better capacity. Estimated process for production is 3 months. The power will be improved with Li-polymer battery, of which the maximum output is 80kW, the voltage 600V and the weight below 60kg. Since monocoque is of high cost, the steel tube frame is chosen. Considering battery cells type and the need for endurance, after the track simulation and benchmarking, the target battery power is decided to be 7.9kWh. And we make it better to control by using torque vectoring and adjustable parameterized chassis. Data acquiring favours individualization. The safety design would be based on the pre-experience.

Due to the market analysis, we take the fans for automobiles or new energy as our focus, take DIAN Tour as the main marketing method, set related games as publicity, provide possibility for customise racing cars and hold the DIAN Championship for VIPs. To meet customers’ demands, we’ll improve the performances of acceleration, control and safety, and establish the DIAN Studio for individualization. Also we’ll use the supporting technical plan to make the cars easy to repair, fix and transport for easier use and to lower the cost for design, produce, human resource and the tour for greater profit.

It is the first time that Tongji University send an EV vehicle to participate, which is very unforgettable. It was for sure a pity that DIAN Racing didn’t clear the Brake Test due to some reasons, while DIAN Racing did get considerable points in the static events in comparison. The weather during the SFJ made troubles for the team in the first day, which delays the arrival of the container. SFJ is a race not only with our outstanding competitors but also with the schedule. The Electric Inspection is the most difficult part for an abroad team, which we eventually overcame. However, we didn’t have a chance to run the car until the Brake Test. It was the not-perfect preparations that led to the result.

We would like to participate next year and aiming high. We wish to get more communication with teams in Japan as well as the rest of the world. And we have come to Japan with the fresh idea of EV vehicles, and it would be great honor for us to see we made a slight difference.

Profile
DIAN Racing Team is composed of students with various majors from different countries. It is part of the Innovation Base of School of Automotive Studies, Tongji University, as well as a passionate and multidisciplinary Formula Student Electric team. The team’s target is to design and fabricate an electric formula style racecar every year and participate in FSE competitions. We thrive to combine our enthusiasm for speed and efficiency with our concerns for a sustainable environment.

As a young team, we aim at designing and building better cars that are realistic, reliable and with relatively high performance. We will be able to apply high level technologies and parts from sponsors in the development of the car. This will provide them a chance to demonstrate their products and brands to both domestic markets as well as abroad, in the context of a zero emission race.

Team-member
Fei Juncong (CP)
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