The Chassis & Integration Team’s objective was to design a chassis that would be of smaller dimensions than the 2013 chassis, would weigh 20 percent less and to manufacture it from 4130 Steel, at the highest possible accuracy so that the CAD model dimensions as far as integration of the vehicle is concerned would apply.

Project Objective and Requirements

Product Description

The new chassis design

The design of the new chassis was focused on the size and shape of every component in order to build a strong and rigid structure which would withstand with the forces and moments that are applied on the chassis under racing condition. In this way, a smaller and more optimal design was achieved.

2013 Chassis

2014 Chassis

Functionality of the components’ integration

- The several components are distributed mainly in the rear part of the vehicle around the engine
- The driver’s seat design and placement maintains a declined driving position to keep a low center of gravity
- Many brackets combine mounting of more than one components, such as the steering wheel and the front suspension shock absorbers, the rear engine part and the differential, the fuel tank and the battery.

Mockup model

- A mockup model was manufactured out of MDF plates cut in CNC to inspect the FSAE rules of 2014
- An adjustable steering wheel mount lead to the most ergonomic position of the wheel to achieve the driver’s comfort

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