The design of the Impactor attenuator was validated by a destructive experiment simulating the vehicle’s front structure to ensure compatibility with FSAE regulations. The impact attenuator was chosen after comparing with other products and did not require testing. The impact attenuator was designed with innovative geometry to enable the necessary weight reduction. Using CAD modeling software and FEA the team designed a light but stiff enough chassis. During the CAD modeling phase, the team members took into account integration factors and focused on volume and weight reduction in addition to lowering of the center of mass.

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Chassis comparison

Laser cut Steel tube

Standard FSAE IA

Aluminium Honeycomb IA

Hydraulic circuit

Brake pedal system assembly

2014 - 42kg
2015 - 34kg

Chassis Assembly Jig table

Aluminium Foam 350 kg/m³

Rohacell-Nr1 110

Aluminium Honeycomb

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