



FSAE Racecar Zeta 2015

Advisor: Dr. Michael McCarthy
Project Manager: Lewis Munshi



Background:

Formula SAE is an annual competition in which students from around the world design, build, test and compete their vehicles. Project Zeta is in its third and final year of design.

Requirement:

- Autocross racing vehicle for non-pro racers
- High performance
- Safe and reliable

Goal:

- Optimize the initial design of the car
- Focus on the endurance of the vehicle
- Ensure the car passes safety inspection

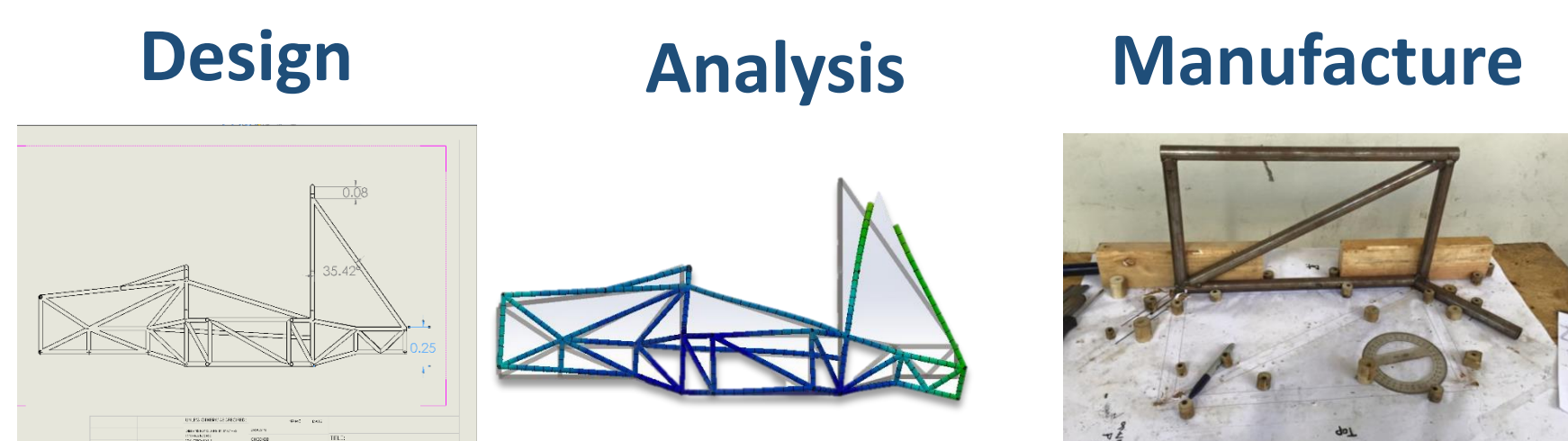
Objectives:

- Redesign the battery storage system
- Redesign the control system
- Improve the safety and accessibility

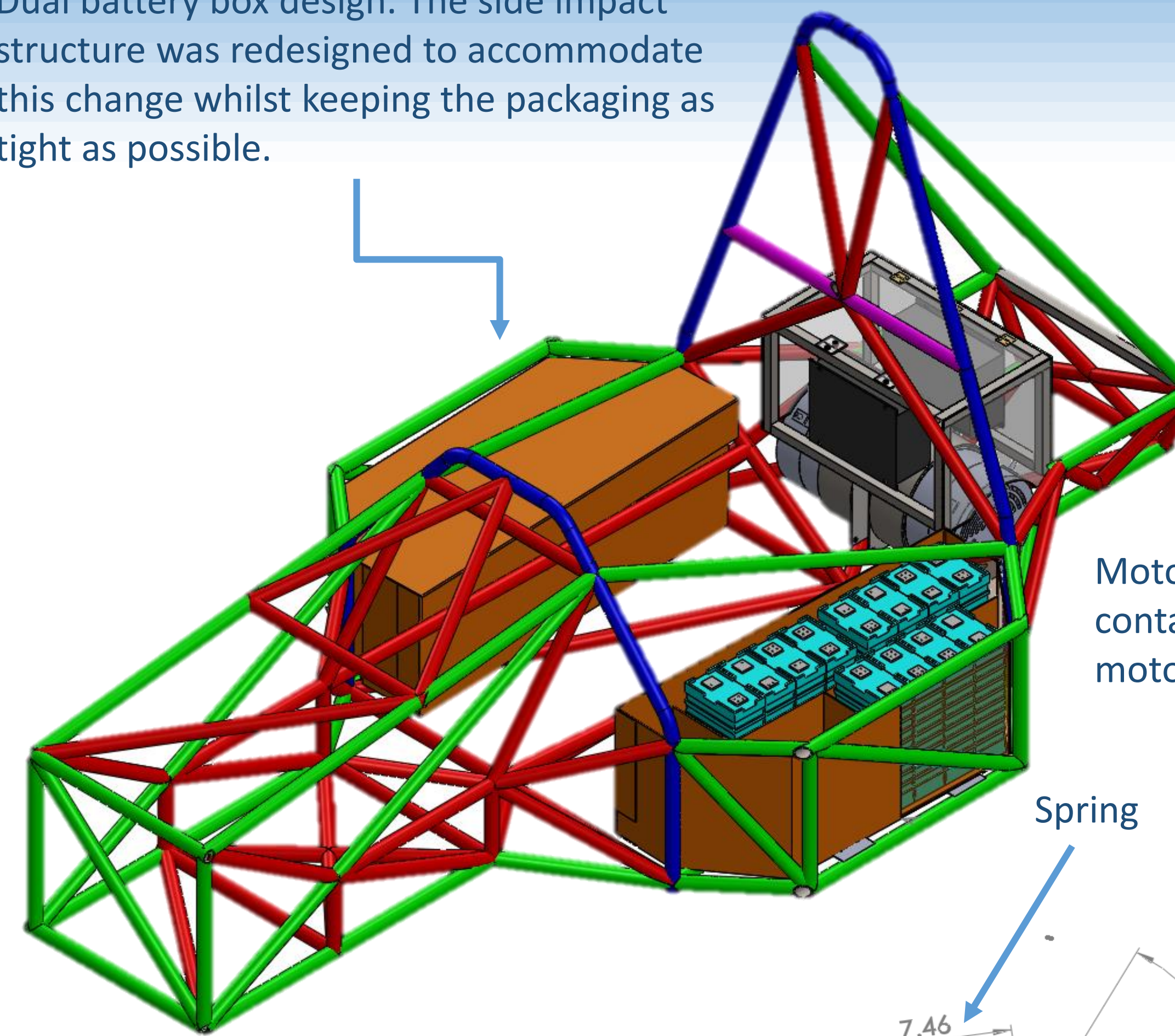
Current Status:

- Battery storage system manufacture in progress
- Bench testing of control system in progress
- Firewall and motor protection designs finalized

Timeline snapshot:

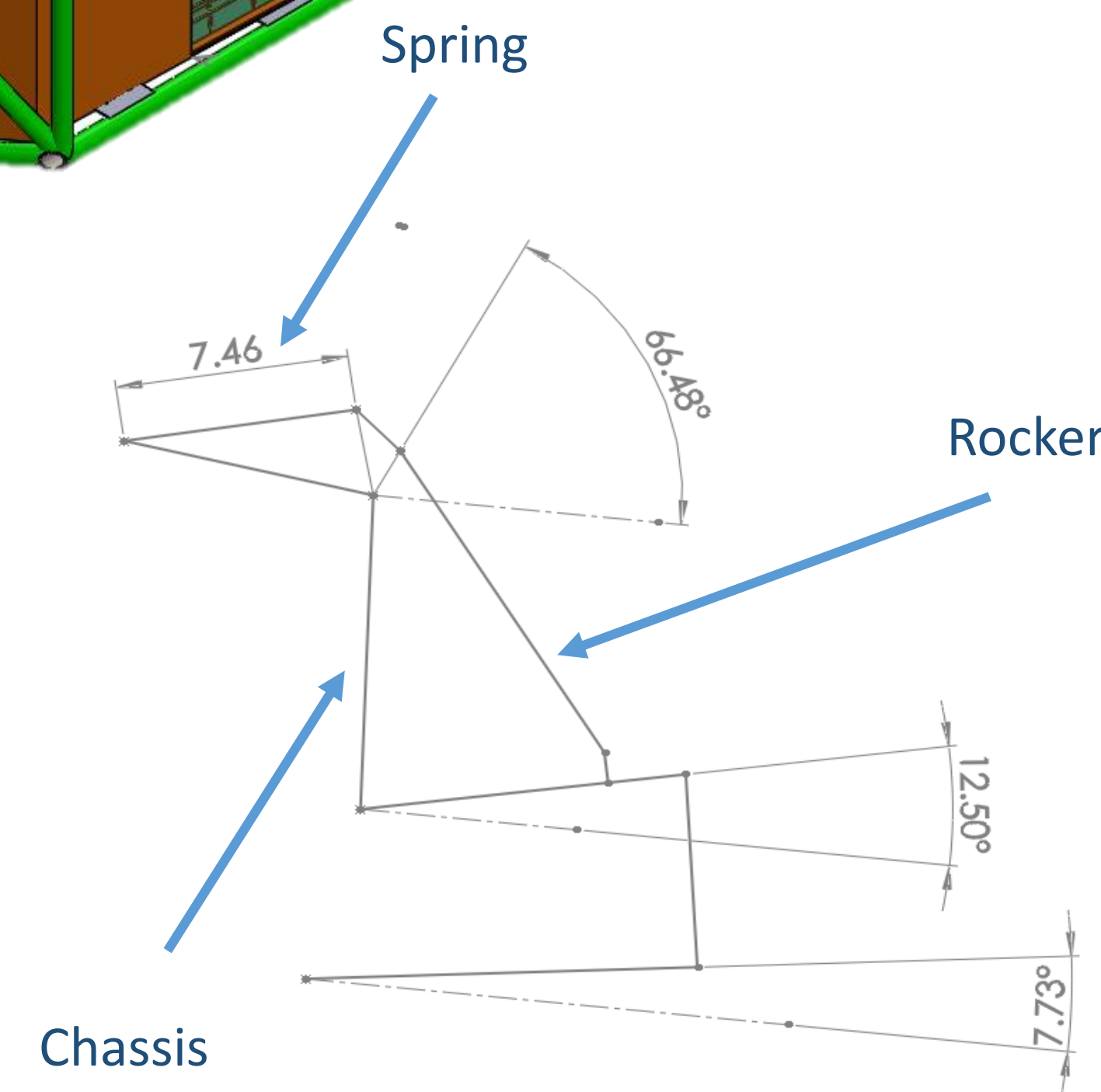


Dual battery box design. The side impact structure was redesigned to accommodate this change whilst keeping the packaging as tight as possible.

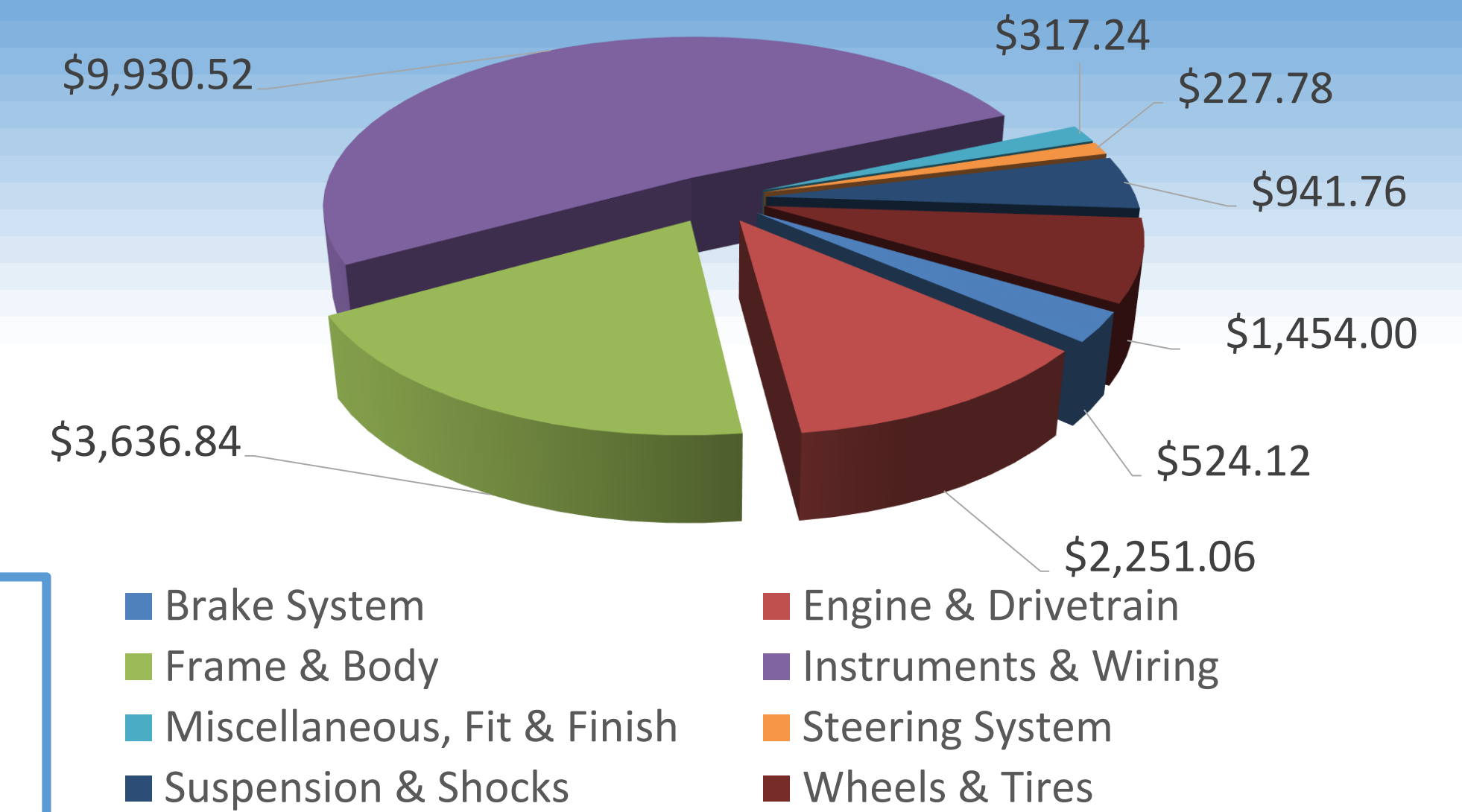


Motor protection box. A design that contains the motors but also houses the motor controllers

Zeta suspension uses the mechanical advantage principal. By using a rocker arm as a linkage between the wheel and the spring, for the same spring, a higher load per compression can be carried. This means lighter springs can be used.



Estimated Costs



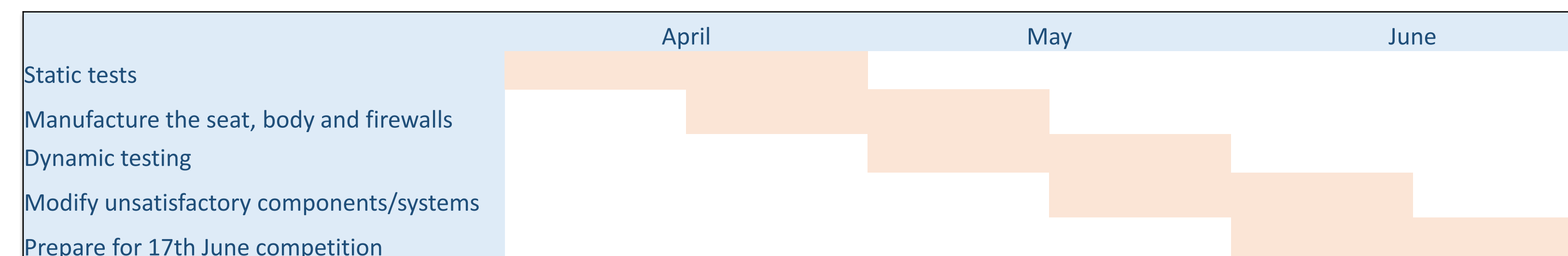
Team structure

Chassis Chris Kent	Low Voltage Omar Khan
High Voltage Chris Kent	Vehicle Dynamics Bryan Richmond
Human Interface Andrew Kwok	Powertrain Eric Wilde

Team members

Ryan Norris	Derek Chung
Brian Mugg	Aaron Shaw
Paul Ha	Stephen Jan
Erick Cruz	Omar Khan
Seijin Dootson	Andrew Kwok
Changmin Koo	Eric Wilde
Eric Gomez	Samuel Cahyadi
Joshua Spalding	

Next Quarter:



Contact Information

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