

Cristina Cervantes, Daniel Moodie, and Cecilia Schoener
 Abhimanyu Sharotry

Background

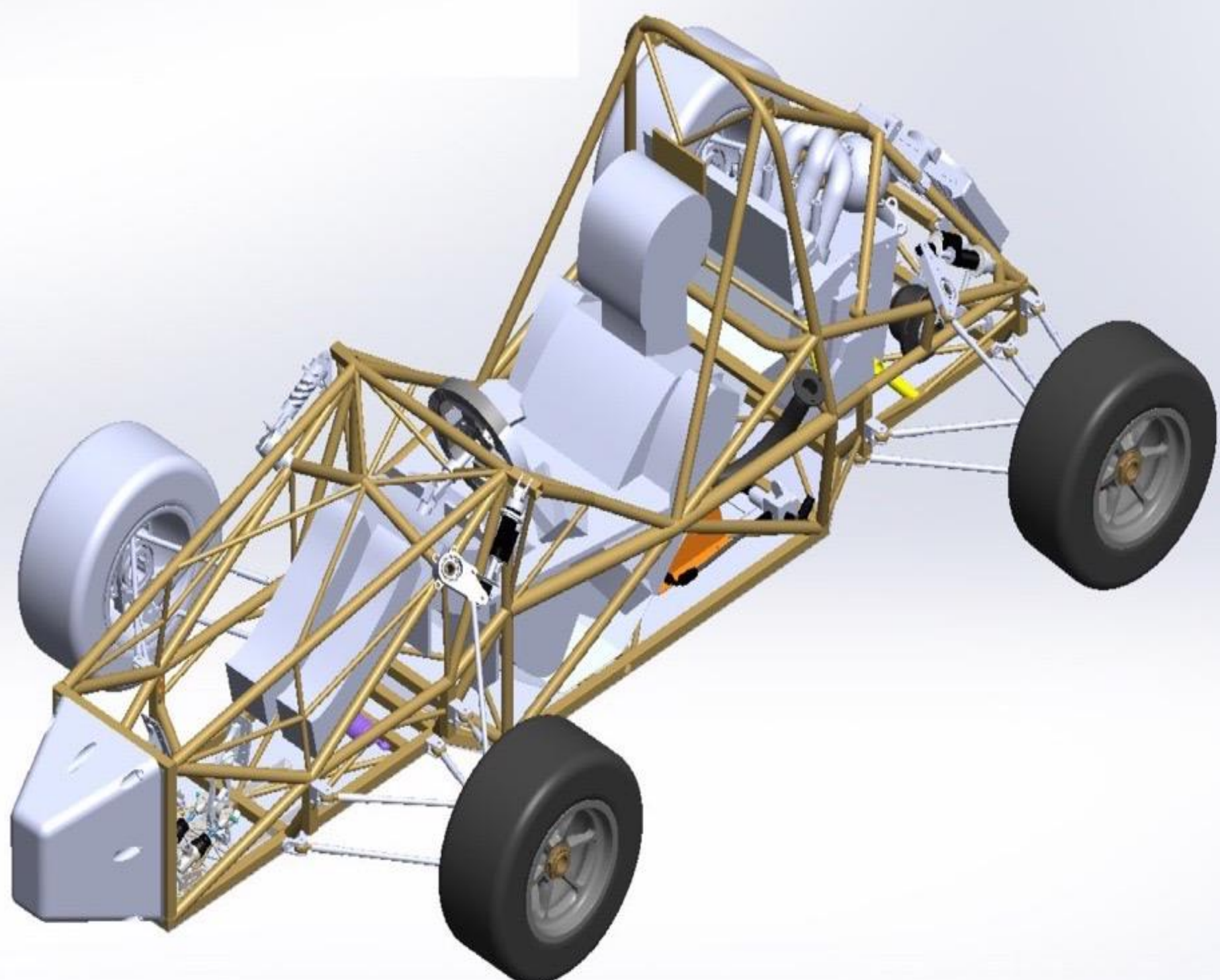
Formula SAE (FSAE) is an international collegiate engineering design competition that challenges universities to design, manufacture, and race formula cars.

Goal

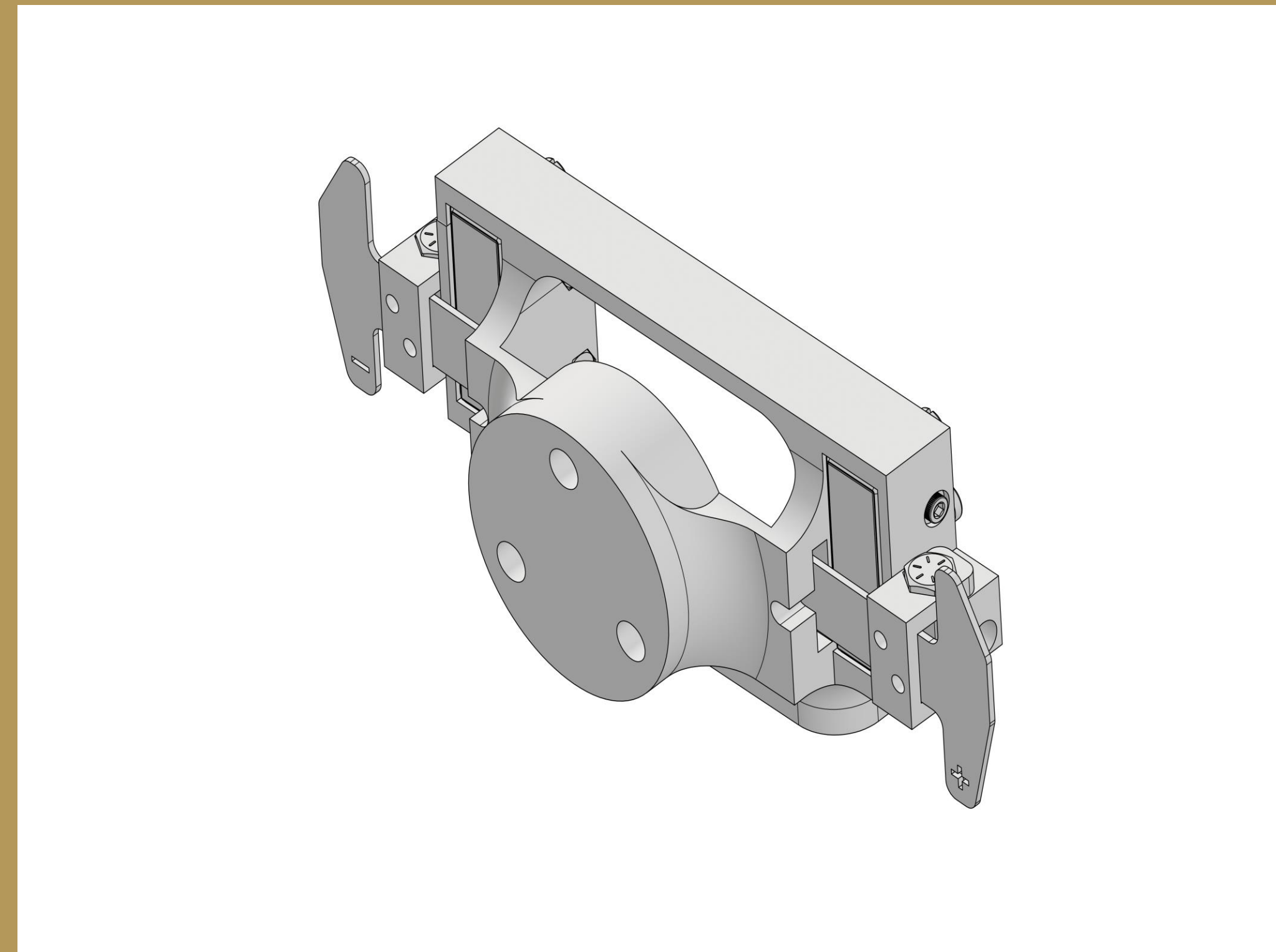
- Design and manufacture a transmission shifting assembly that complies with the FSAE 2024 rules
- Must pass technical inspection and operate effectively in the dynamic events during the 2024 FSAE competition

Objectives

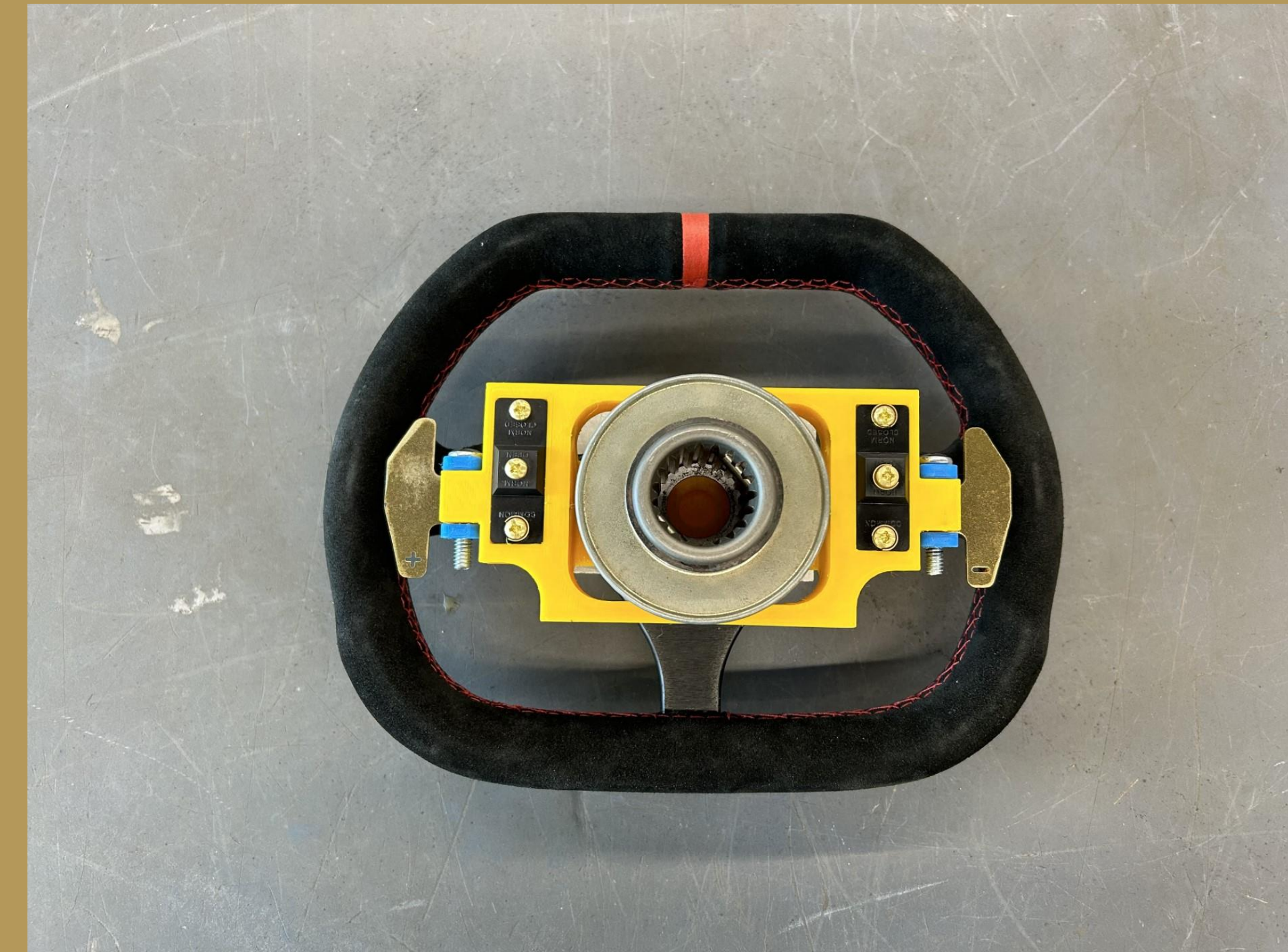
- High strength to weight ratio
- Optimized factor of safety
 - High reliability



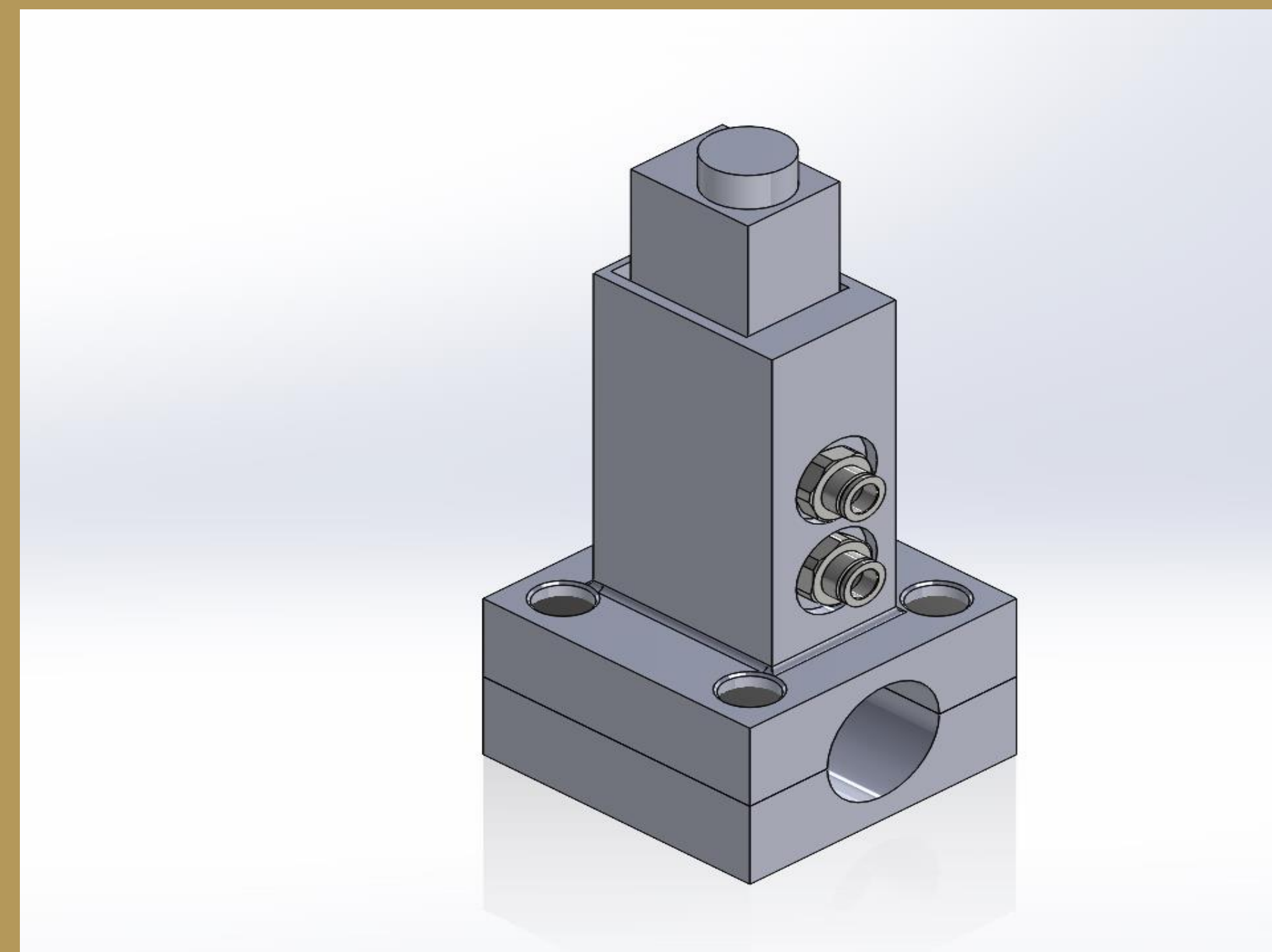
CAD



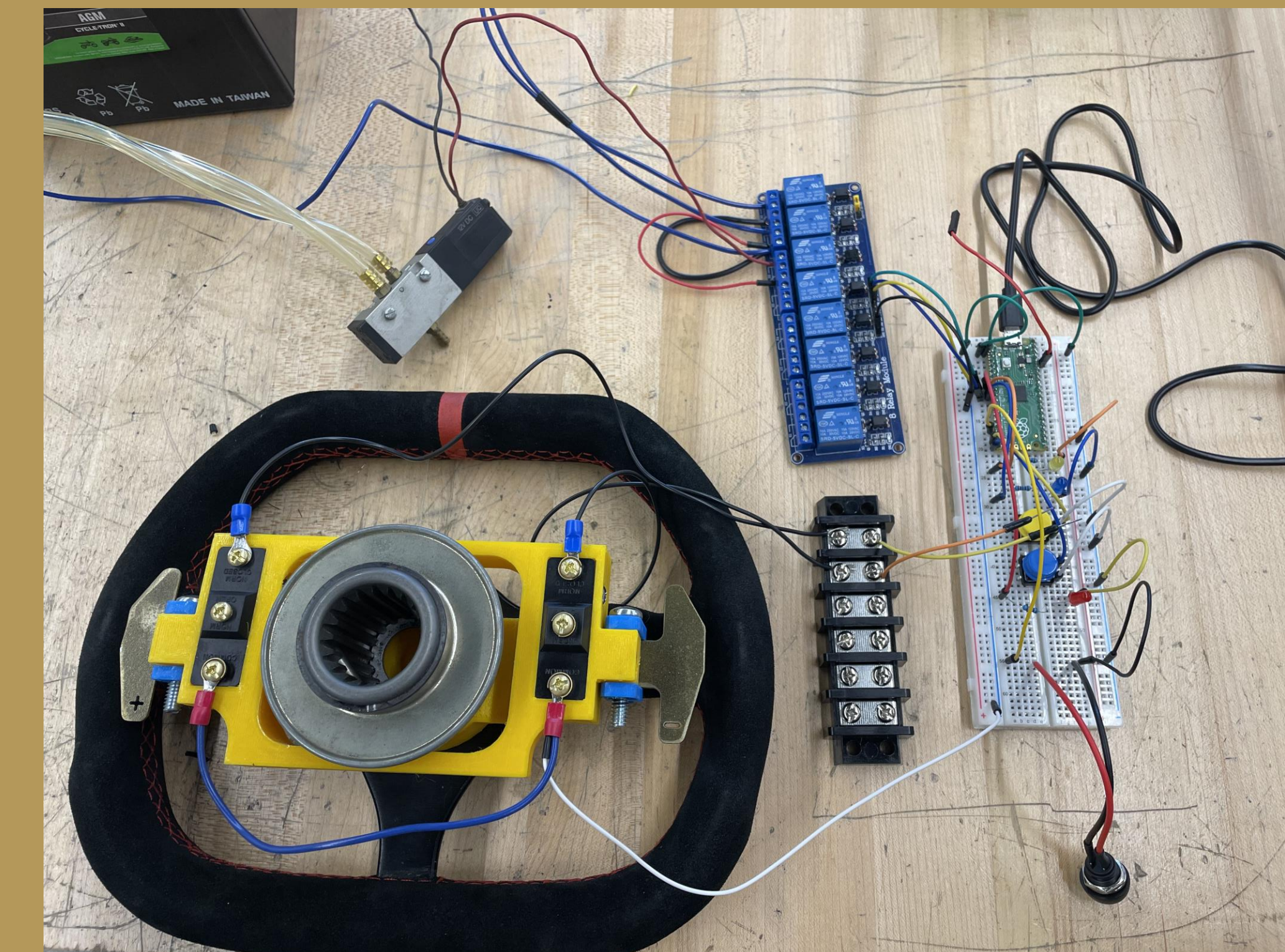
New Hub Assembly



New Steering Wheel Assembly



Solenoid Valve Enclosure



Benchtesting

Flowchart



Acknowledgements

Abhimanyu Sharotry – Project Advisor
 James Davidson – Instructor
 Lost Paintball: Mike Hall - Pneumatic Sponsor
 San Marcos Motorcycles: Phillip Bain – Power Commander

Team



Cecilia Schoener (Left), Cristina Cervantes (Center), and Daniel Moodie (Right)