

SAE Baja Suspension

Team Members:

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Client:

Wyoming Motorsports

Advisor:

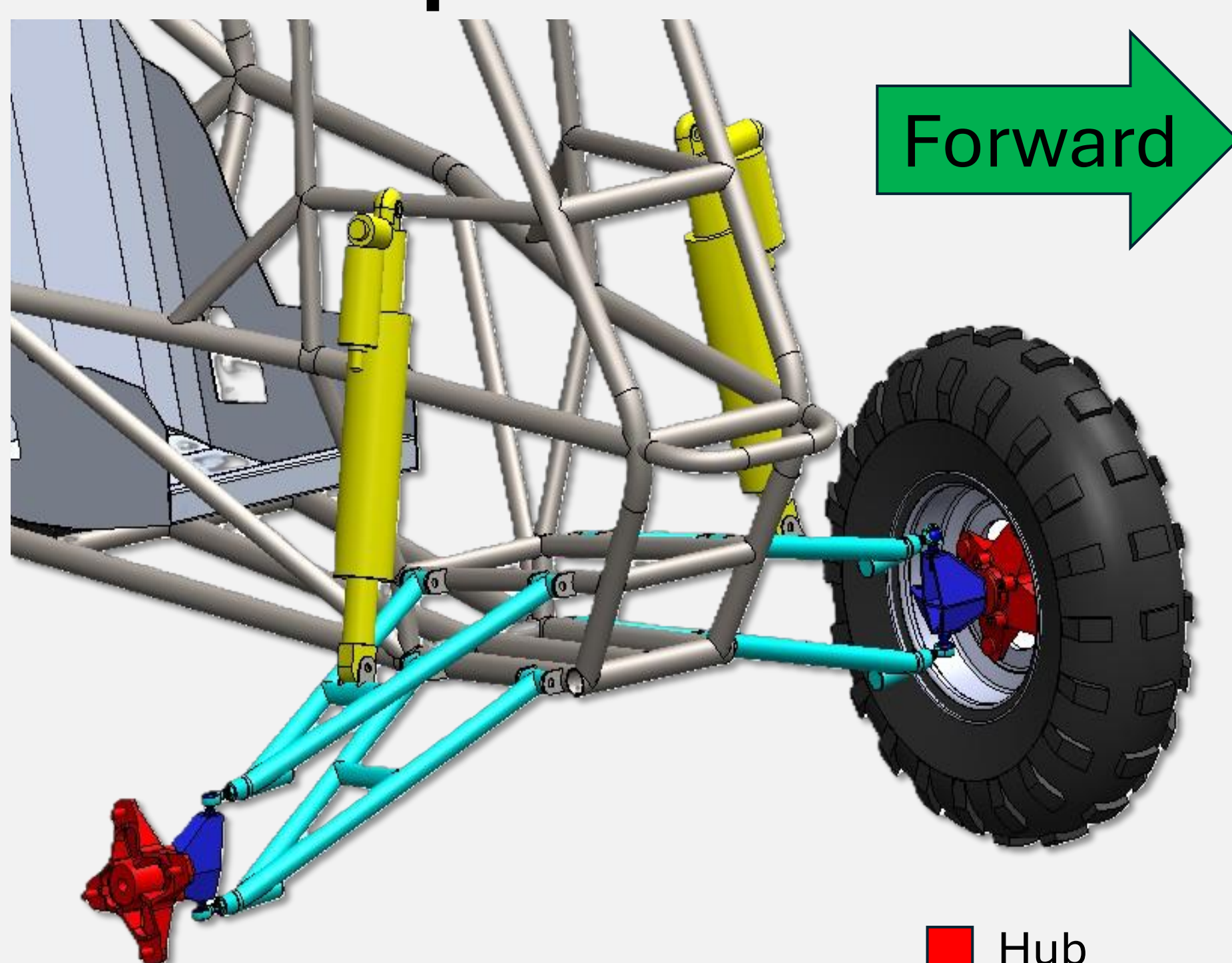
Gerardo Pinto



Project Description

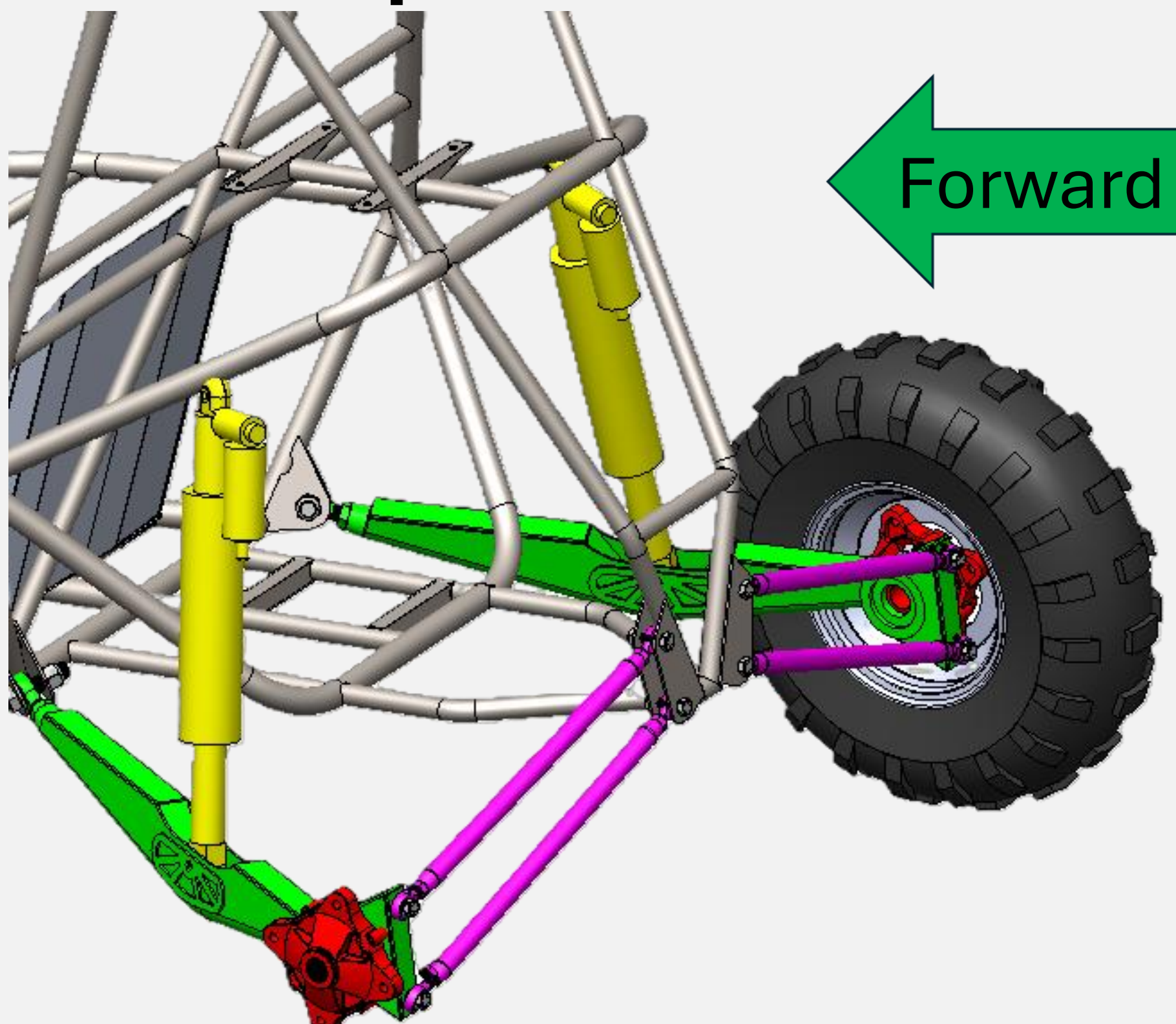
The project goal is to design a high-performance suspension system for the Baja SAE competition that can withstand the extreme demands of the competition. We are motivated by the challenge of balancing structural strength with the agility needed to conquer off-road obstacles. By optimizing the vehicle's geometry and handling, our team aims to ensure maximum stability and speed during the most rigorous dynamic events. Ultimately, this suspension is built to keep the vehicle resilient and competitive through every jump and turn on the track.

Front Suspension



- Hub
- A-Arm
- Upright
- Shock
- Trailing arm
- Camber Arm

Rear Suspension



Product Requirements

- Minimum 16 in ground clearance
- ± 4 in adjustment range and 8 in wheel travel
- Limit bump steer within $\pm 0.25^\circ$
- Improves driver comfort
- Minimum 0.5 in clearance between suspension members and rotating parts
- Camber adjustable $\pm 2^\circ$ and toe $\pm 2^\circ$ (front & rear)

