Our overall goal for the Frame and Systems team was to design and build a frame that provides a safe, comfortable, and fun ride for the driver. Providing integration for each subsystem to optimize performance was also critical to be a competitive vehicle at the Baja SAE California competition.

Key design goals:
- Wide cockpit for driver comfort
- 50/50 (%) front/back weight distribution

Competition rules provide an extensive list of rules to ensure the vehicle is safe for the driver. The rules were frequently referenced to ensure all requirements were met. If any part of the design was found to be inadequate, the design was revisited and adjustments were made to ensure the design is safe and met all requirements.

Our design goals were heavily based off of the 2018 Baja Vehicle. The 2018 vehicle is very small and uncomfortable. The front/back weight distribution of the 2018 vehicle is 35/65 (%). The lack of weight in the front causes the tires to lose traction when turning. The front tires also lock and slide when braking.

The weight distribution of the vehicle is 45/55 (%) front/back. The distribution allows for increased traction in the front, which improves turning and braking capabilities.

The cockpit of the vehicle is much wider than the 2018 vehicle. The vehicle comfortably fits a majority of the team. Only the smallest drivers were able to comfortably fit in the 2018 vehicle.

The performance and results of the vehicle shall make us competitive in the SAE Baja competition. We expect to perform to the best of our abilities and represent USU with great results.

Interested in BAJA? Please feel free to ask questions about our vehicle.