

USU Mini BAJA Senior Design

Project Description

Problem description and/or motivation

- Design an ATV to compete in BAJA SAE
- AWD
- High ground clearance
- Lightweight
- Reliable

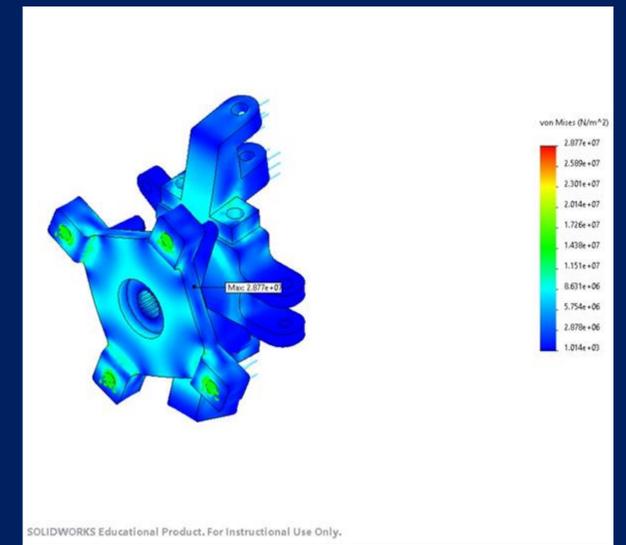
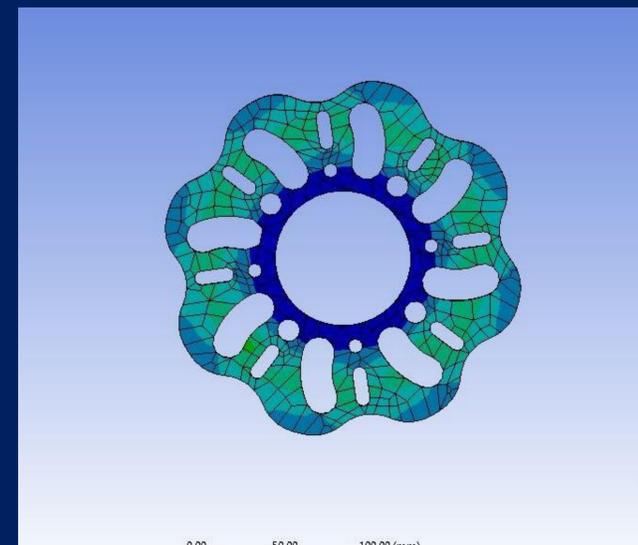
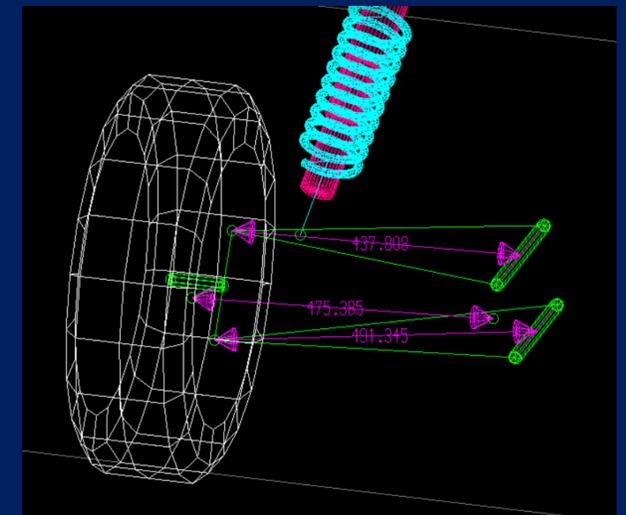
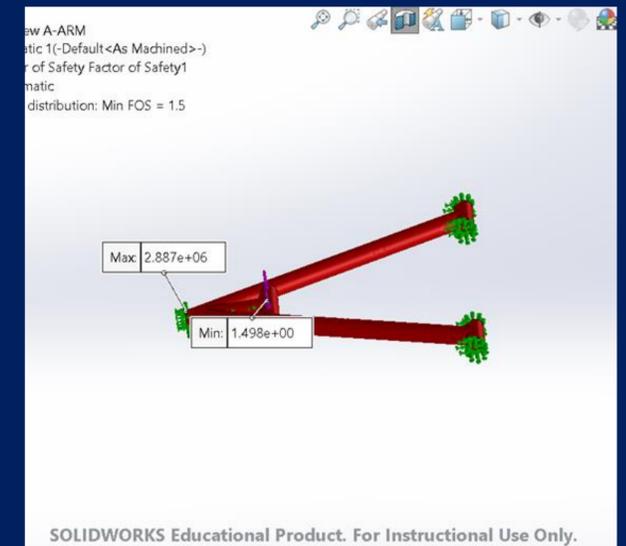
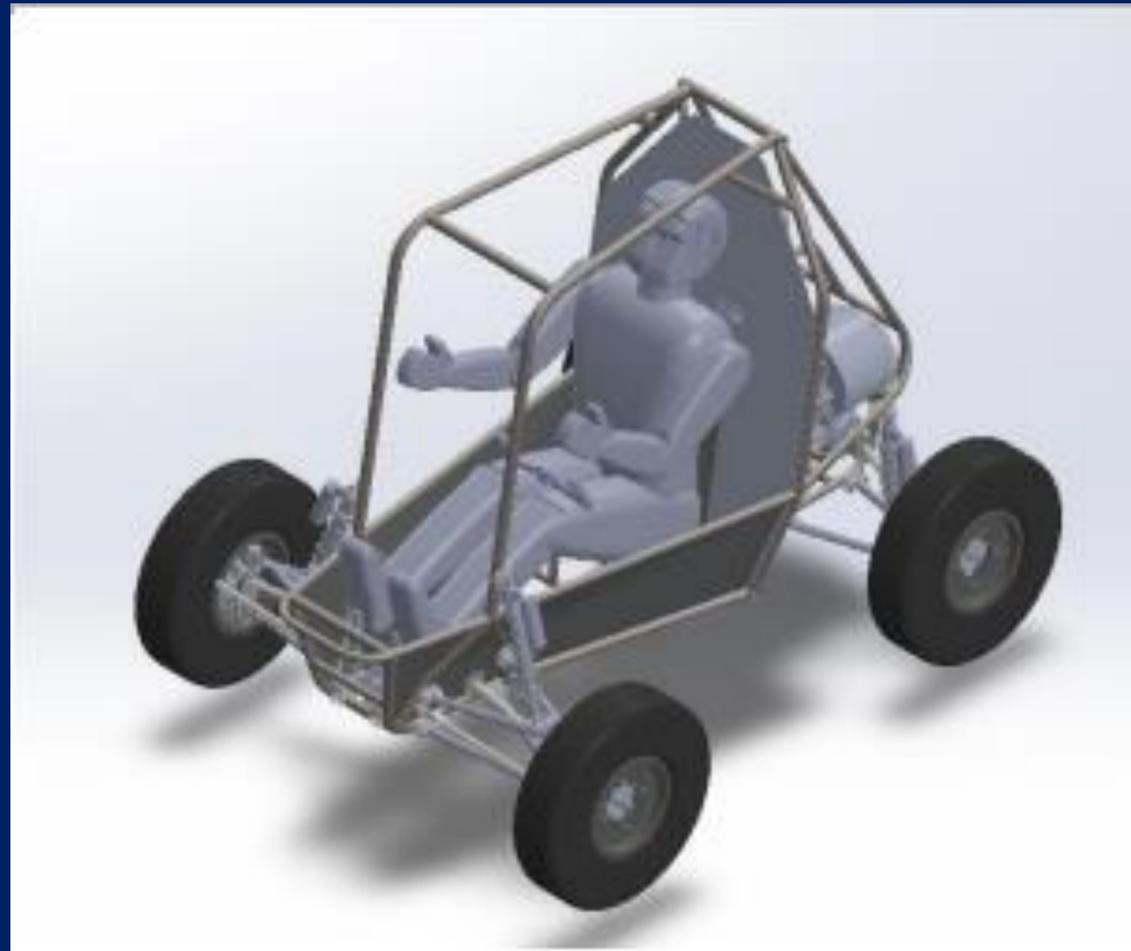
Performance Review

Testing to verify performance

- Brake testing for lockup
- Brake thermal analysis
- Hub structural analysis
- Suspension testing for travel
- Steering testing for bump steer and turn radius

Conclusion

- The design met the requirements to compete in BAJA SAE
- Lessons Learned: Fully understand the requirements before beginning manufacture
- Recommended Future Work: Where should your design go from here? The design should be refined to save weight and reduce complexity rather than reworked from scratch.



College of Engineering
Utah State University

Aaron Capell, Ryan Januzik, Jaxon Lofthouse, Caleb Park,
Spencer Reid, Zach Surdell, Spencer Thomason, Aaron Williams

Contact: Tristan Spencer 435-797-3820

Special Thanks to: Tristan Spencer, Parker Carter, Jackson Graham
USU Baja Club, Terry Zollinger and our Sponsors