Problem Statement
The purpose of this project is to combine three existing tool technologies into one convenient product for use in the industry.

Design Goals
- Increased RPM’s
- Increased Torque
- Ergonomic Package
- Anti-Lashback

Prototype and Manufacturing
- 3D printing for prototyping
- Material selection for durability
- Software simulation and analysis
- Fully functional product manufacturing

Existing Tool Technology
- Pneumatic Ratchet: 50 ft lb, 150 RPM
- Impact Wrench: 500 ft lb, 1000 RPM
- Pass-Thru Sockets: Use with infinite length bolts/studs

The Panther Pneumatics Team
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Project Timeline
- Literature Survey
- Design Research
- Conceptual Design
- Initial Design
- Prototype
- Manufacturing
- Testing
- Final Design
- Final Presentation