

Atlas Project Summary

Project Challenges

- Managing up to 5 engineers through the detailed design phase, including FEA and fully dimensioned fabrication prints
- Created or validated all assembly drawings, tolerance stack ups, and repair kit lists
- Routing hydraulic hoses through the manipulator, keeping them protected and free from pinch points

Manufacturing Processes Used

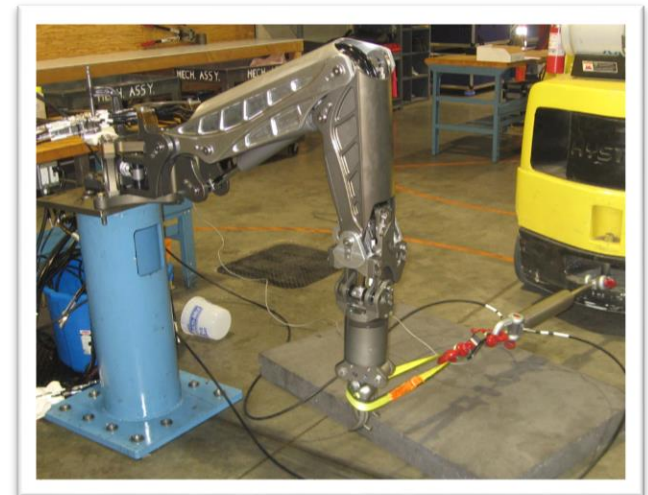
- Aluminum extrusion
- Machining
- Anodization
- Poured urethane

Project Highlights

- Very high lifting force to weight ratio
- Common parts used throughout to minimize repair inventory
- Extensive load testing
- Visiting customers after field testing and validation to find no issues and happy customers



Load tested to 550 pounds at full extension



All joints load tested to failure to validate the design.

THOUGHT BOMB DESIGN

Work shown was completed as Project Engineering Lead while employed at Schilling Robotics