



Robotic Arm Platform

Team Victory Lap

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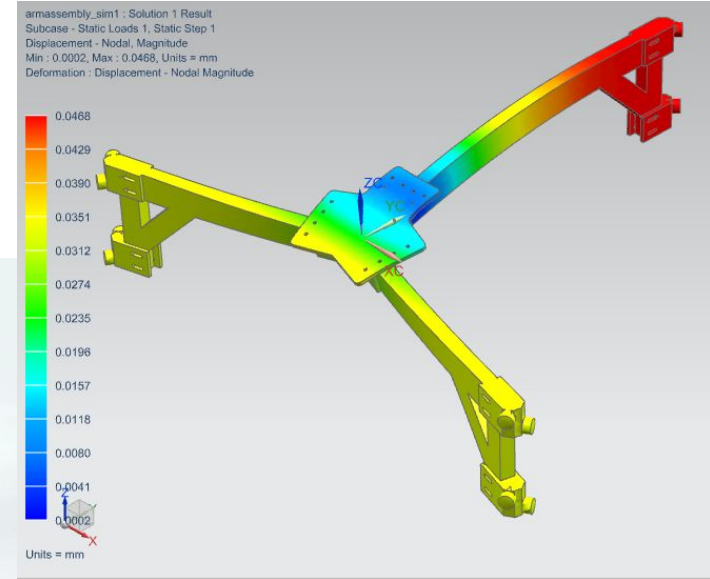
Updates

- Meet with Jason
 - Assembly
 - Design discussion
- Updated platform
- Beginning FEA
- Planning prototype

Assembly

- Will be handled by Suez

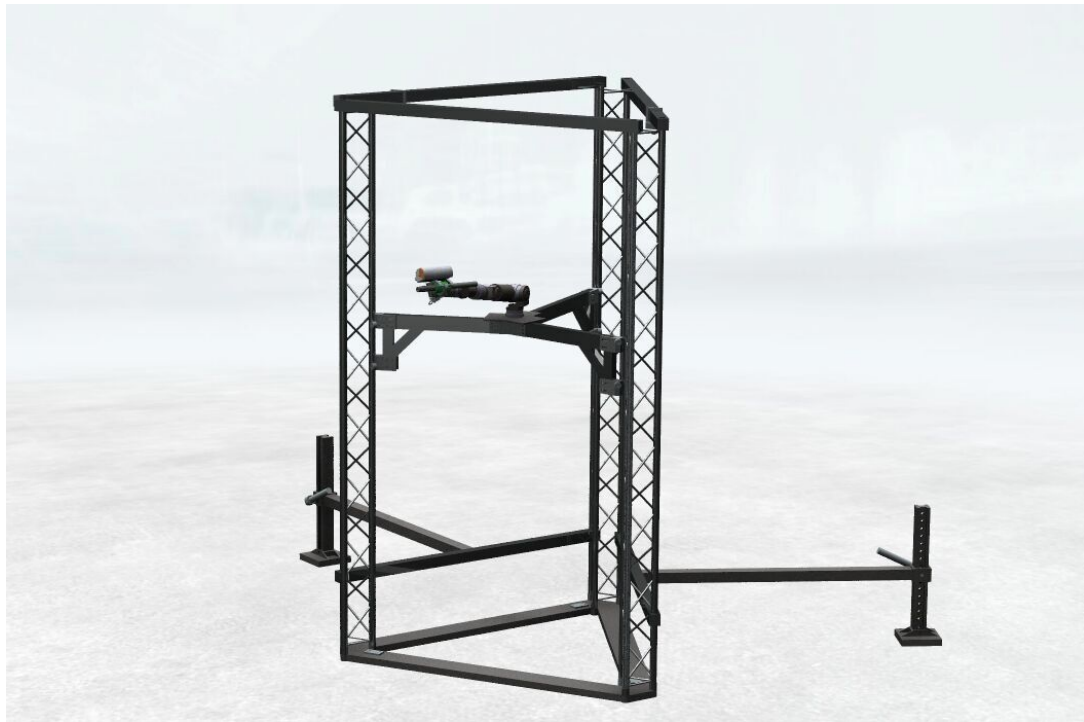
Updated Platform



FEA

- Static Analysis:
 - Test for rigidity when arm is static ($F = 375.7 \text{ N}$)
 - Test when oriented straight up
 - Test for rigidity when arm is static ($M = 209.75 \text{ N m}$)
 - Test when oriented straight forward
 - Test when oriented straight backward
 - Test when oriented straight left/right (symmetry)
 - Test for rigidity when arm is moving ($M = 294.21 \text{ N m}$)
 - Test when a clockwise and a counterclockwise moment is applied on each axis (x, y, z)
- Vibration Analysis
 - Determine natural frequency and modes

Pictures



Pictures



Pictures



Prototype

- 3D printing