

SOLIDWORKS Modeling of Habitat Additions

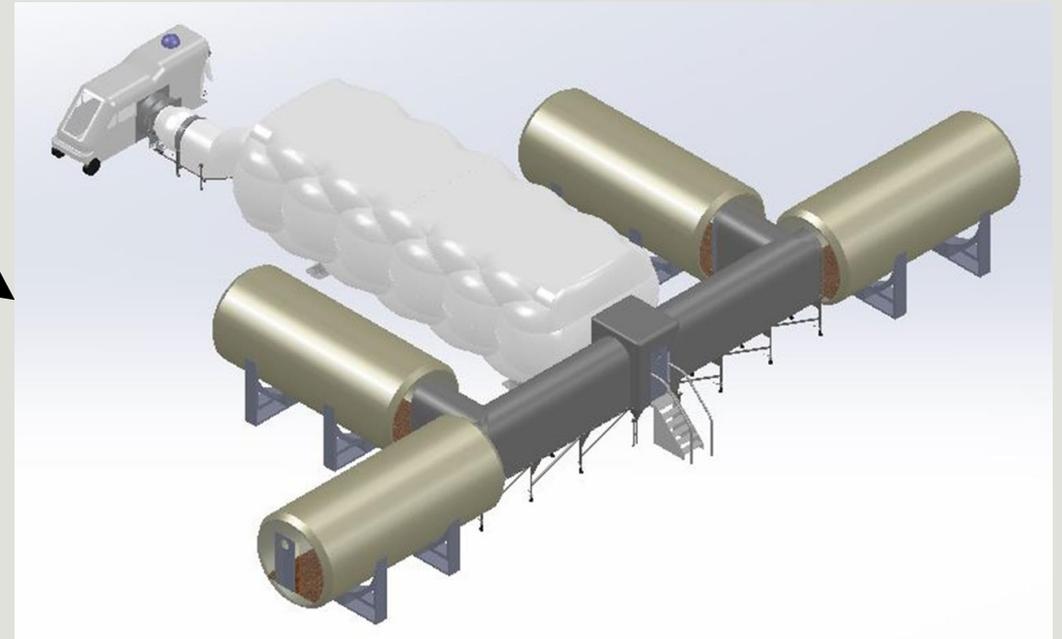
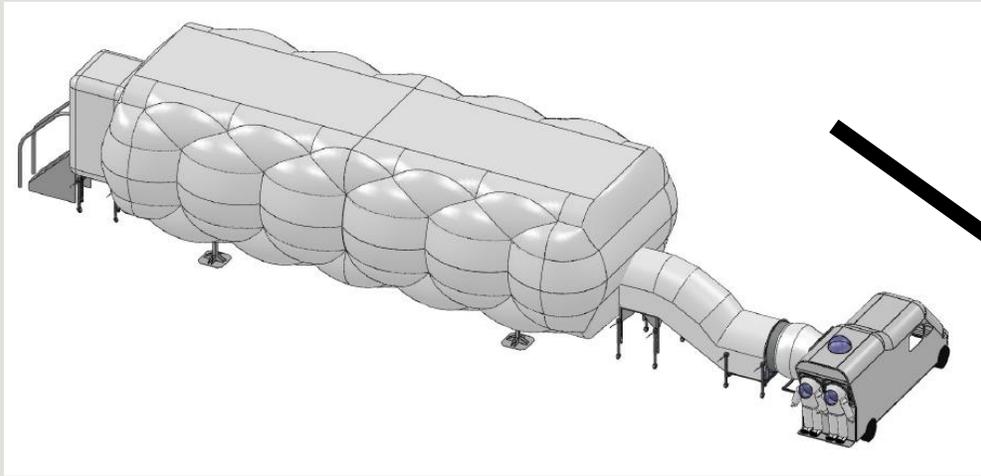
(And Highlights of STEM Ambassador Events)

MADDY OLSON

University Habitat Purpose

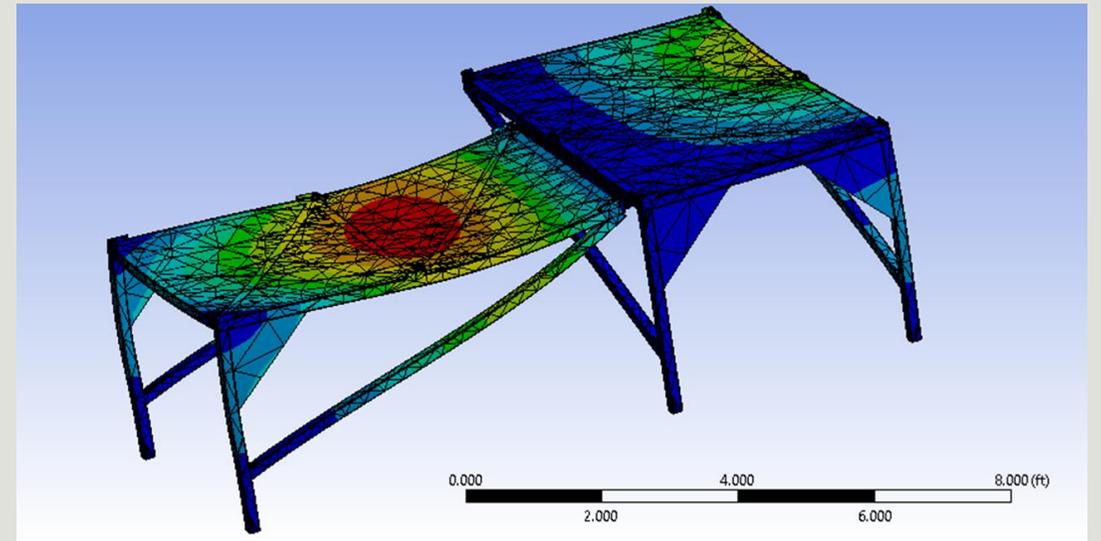
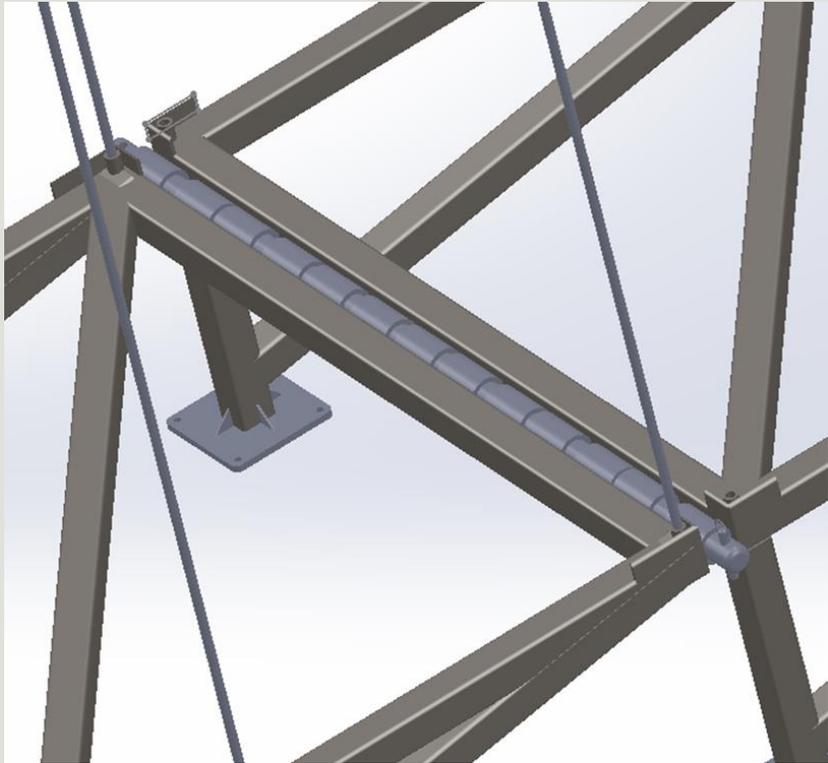


Why Additional Modules?



Hallways and Connections

- 270 lbf on each panel (AVG weight at a S.F. 1.5)
- Animation exaggeration – max deflection is $3.41 \text{ e-}3$ in
- Diagonal support shows stress



Fabrication



Future Plans (2017)

- Place EVA and Plant Production Modules at the Core Module Location
- Complete Geology and Human Performance Modules
- Complete Hallway Platforms and Insulation
- Install Temperature/Humidity/Air Quality Regulation and Electronics
- Furnish with Equipment and Test!

Personal Experience

- ❑ Learned to Measure Twice, Cut Once
- ❑ Plan and Organize an Individual Assignment
- ❑ Gained Knowledge on the Conditions of Space and Design to Accommodate the Environment

STEM Ambassador Activities and Tours

- Tours of UND Facilities
- Local Classroom Visits
- Activities Held at UND
- Collaboration with SWE, Women in Aviation, Rocket Club



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Center

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Swain

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INFORMATION
CONTACT
THE
OFFICE
OF
PUBLIC
AFFAIRS
314.344.2200

Question? Habitat or STEM events?

