Retractable Storage Rack for Inert Atmosphere Glove Box

Members: Jacqueline Matthews, Micheal Rodino, Evan Ryan
Sponsor: William Starch **Advisor:** Dr. Hellstrom **Instructor:** Dr. McConomy

FAMU-FSU Engineering

Background

- Controlled atmosphere apparatus which uses inert gas (Argon) to provide a stable and sterile work environment.
- Can manipulate air properties and allow for more accurate testing.

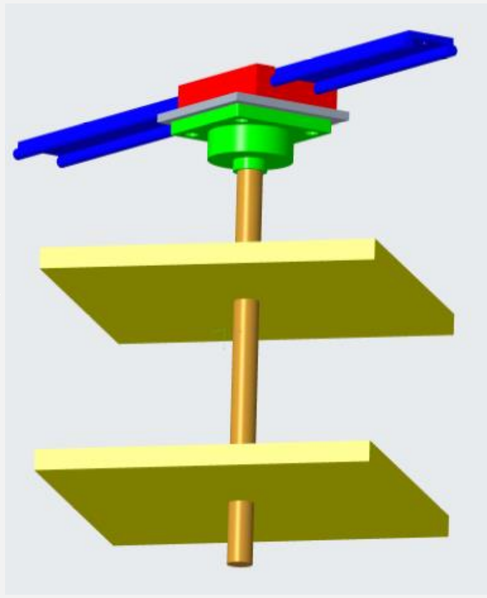
Objective

- Create fully functional retractable racks that will be implemented into an inert atmosphere glove box.

Motivation

- Maximize reachable storage space by utilizing unreachable areas of the glove box.
- Facilitate an open work area.
- Store unused items out of way of ongoing experiments.

Final Design



Approach

- Inverted Lazy Susan design that uses translational and rotational movement.
- Mounted in back left corner of glove box.
- Bolted to roof of glove box.

Challenges

- Assembled through antechamber.
- Assembled using the gloves.
- Bolting storage solution to top of glove box and sealing bolts.