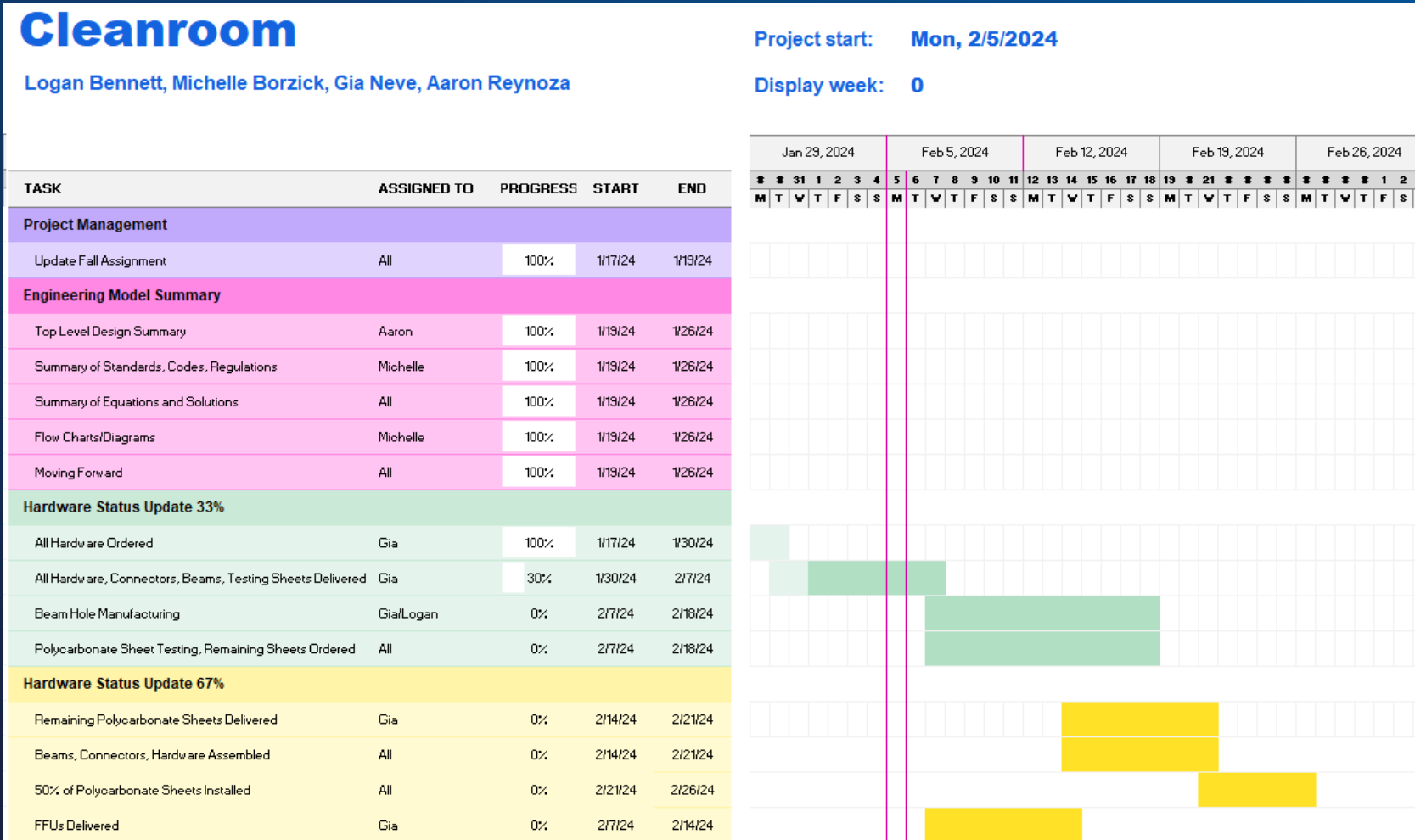


# Modular Sterile Cleanroom 33% Hardware Status Update

Logan Bennett  
Michelle Borzick  
Gia Neve  
Aaron Reynoza

# Updated Gantt Chart

Status: Behind



## Roadblocks:

- Purchasing
- Testing Polycarbonate Sheet Thickness and Height
- Gowning Room Steel Beam Manufacturing

## Overcoming Roadblocks:

- Beam Hole Machining Jigs
- Polycarbonate Sheet Testing Plans

Figure 1: Updated Gantt Chart February 2024

# Design Efforts

Fully designed CAD Design with completed BOM and manufacturing plan.



Figure 2: Fully modeled CAD Render of 12x16 Cleanroom

# Design Efforts

**Zinc-Plated Grade 5 Steel Flanged Hex Head Screws**  
Medium-Strength, 1/4"-20 Thread Size, 2" Long



Figure 3: Cleanroom machined bolt with flanged

**Medium-Strength Steel Hex Nut**  
Grade 5, Zinc-Plated, 1/4"-20 Thread Size



Figure 4: Cleanroom machined nuts

# Design Efforts

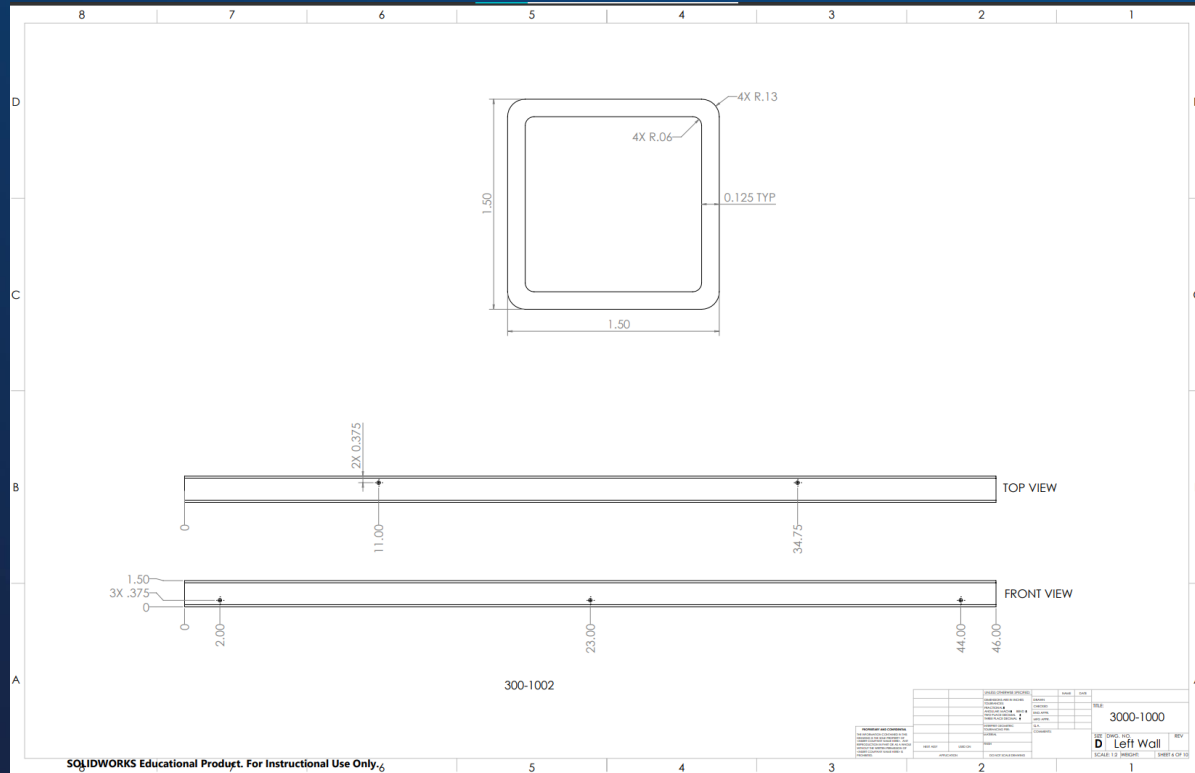


Figure 5: CAD Drawing of Cleanroom's Beam

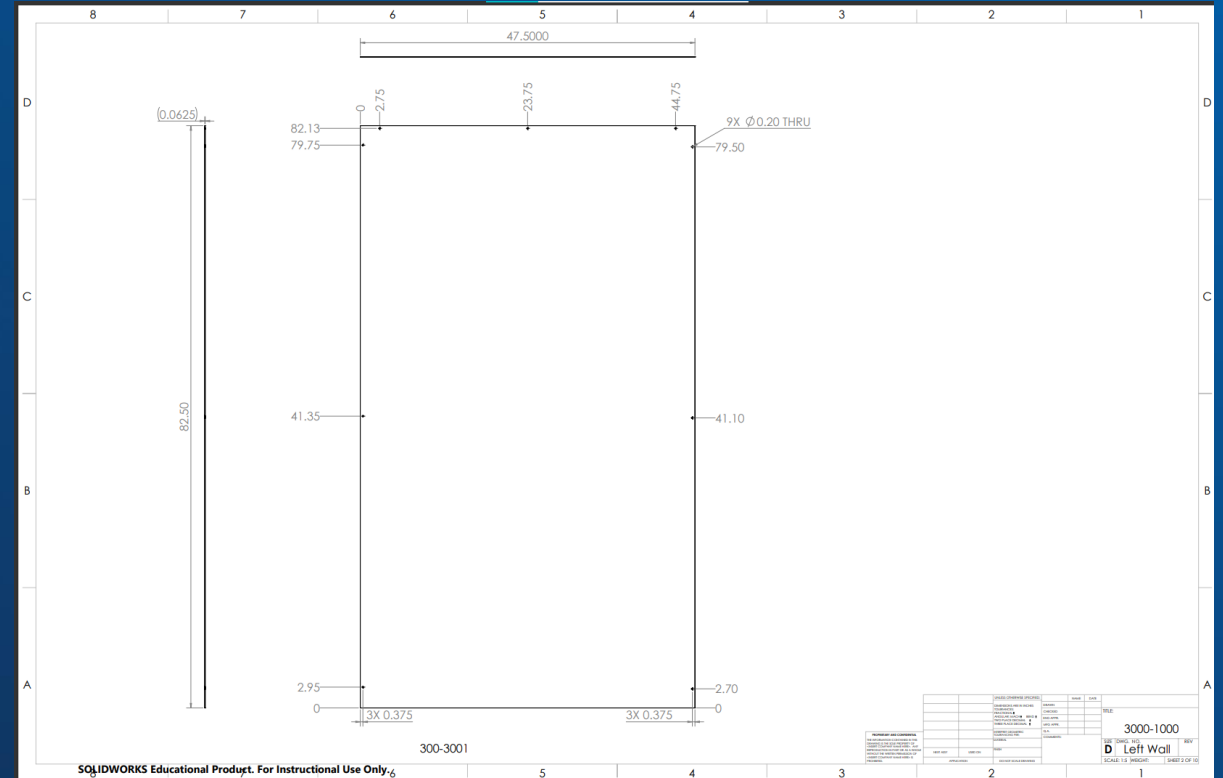


Figure 6: CAD Drawing of Cleanroom's polycarbonate Walls

# Design Efforts

- Design Updates:
  - Polycarbonate Sheet Thickness  
1/8", 3/32", 1/16"
  - Wall Height Gap 6", 8", 12"
- Calculation Updates:
  - Cost Analysis will change based  
on sheet thickness



**1/8" X 48" X 96" Clear  
Polycarbonate Sheet**

Figure 7: Polycarbonate Sheets

# Purchasing and Manufacturing Plans

See attached Bill of Materials

# Demonstration



Figure 8: Bolt Measuring Jigs

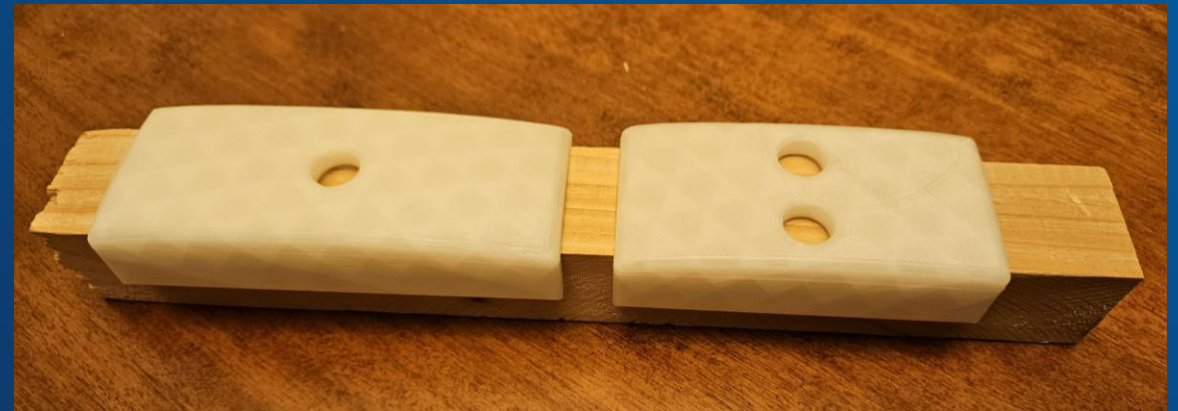


Figure 9: Jigs on Example Beam



**THANK YOU!**