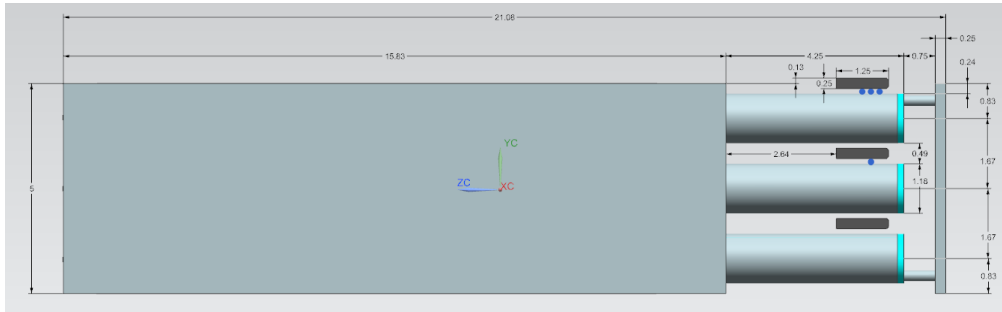


## Summary

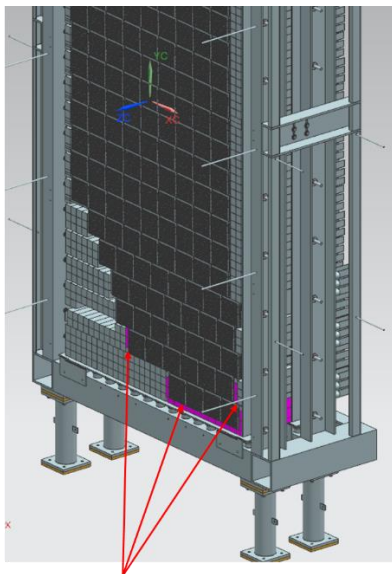
### Hall A – ECal

*Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, and Marc McMullen*

- Produced a right side view of the supermodule



- Reviewed the latest model, which includes aluminum bars on the bottom two rows to add additional heaters



Aluminum heater bars

- Testing one module placed inside DSG's environmental test chamber (ETC)
  - ★ Interior of ETC measures 24" x 24" x 30"
    - Test will indicate how module will behave with proposed silicon heaters
- Met with Custom Heaters and Research to discuss heater quote
  - ★ Steady-state operating temperature of heater is 230°C

### Hall A – GEM

*Brian Eng, Marc McMullen*

- Reconnected supply line to channel 13 after determining a possible seating issue with the tubing to the push-to-connect fitting on the output



# Detector Support Group

*We choose to do these things "not because they are easy, but because they are hard".*

**Weekly Report, 2022-09-07**

## **Hall A – SoLID**

*Brian Eng, Mindy Leffel*

- Ordered thermocouple connectors and extension wire for top of turret, using Oxford manual as basis for types
  - ★ For each lead, 1 K Type and 2 T Types
- Replaced four crimp CPCs with solder circular DIN connectors on load sensor cables.



- Investigated broken wires in turret

## **Hall B – Gas System**

*Brian Eng*

- Installed LabVIEW 2022 Q3 on development cRIO for testing; so far no crashes or freezes with main GUI

## **Hall B – RICH**

*Tyler Lemon*

- Configured a new version of hardware interlock program that uses an EPICS client with an external softIOC, which would allow process variables to be used in Hall B's alarm handler

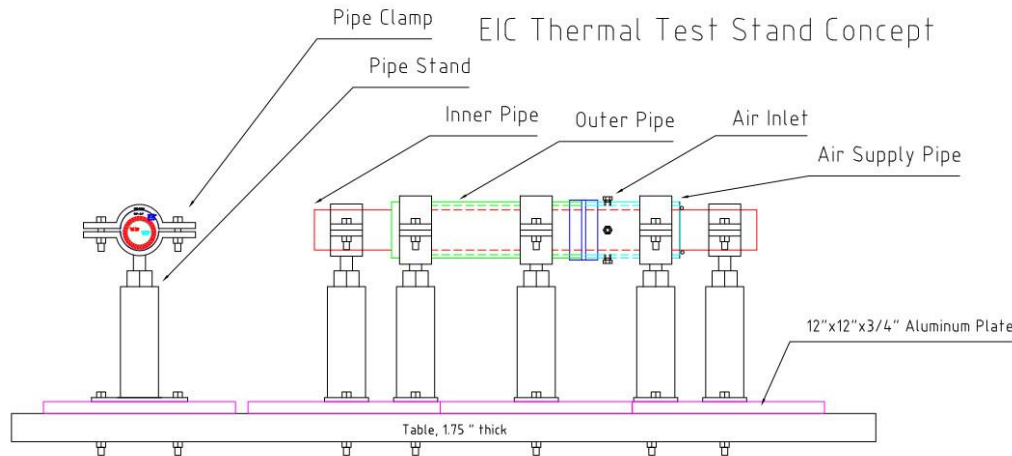
## **Hall C - NPS**

- Submitted PR for 1100 feet of cable to fabricate humidity sensor power cables

### EIC

*Pablo Campero, Brian Eng, George Jacobs, Marc McMullen*

- Beampipe test setup
  - ★ table mounted with aluminum plates



- ★ DSGList completed, and approved by EH&S; <https://tasklists.jlab.org/dsglist/tasks/107372>
- ★ So far, no one is willing to be the Design Authority to approve the air cooling system

### EIC - DIRC

*Tyler Lemon, Marc McMullen*

- Researched BaBar laser test station components on hand to determine what DAQ instrumentation could be used
  - ★ Kimmon Koha He-Cd laser model IK5351R-D with two output settings
    - 5-mW power, 325-nm wavelength
    - 35-mW power, 442-nm wavelength
  - ★ Thorlabs Photodiode model SM1PD2A
    - Responsivity at 325 nm is ~0.15 A/W
    - Responsivity at 442 nm is ~0.25 A/W
  - ★ Ideal current response of photodiode can be calculated by multiplying laser power and responsivity
    - At 325 nm, ideal current response will be ~0.75 mA
    - At 442 nm, ideal current response will be ~8.75 mA
    - Actual current response will be less than ideal due to variations in actual photodiode responsivity and from defects in BaBar
  - ★ For measuring photodiode response currents on the order of microamps, propose using DSG's Keithley 8517B Electrometer
    - 10 mA–21 mA measurement range with scanner card for multiple inputs
    - Meter has GPIB interface for communication to DAQ PC
- Conducted walkthrough of DIRC area in EEL 108