



# Detector Support Group

We choose to do these things “not because they are easy, but because they are hard”.

Weekly Report, 2020-07-29

## Summary

### Hall A – SoLID Magnet Controls

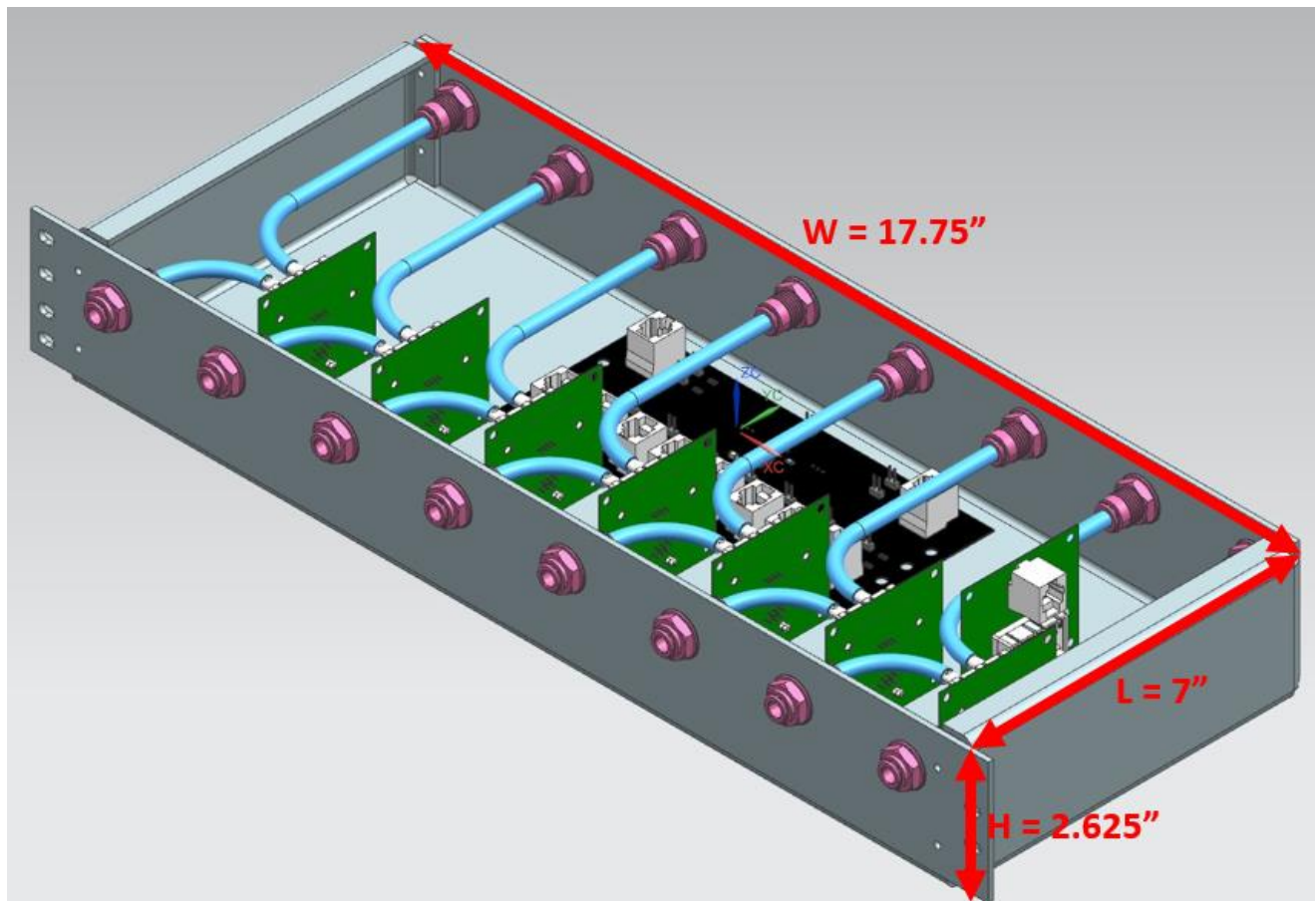
Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, Marc McMullen

- Completed wiring diagram for sheet named “PLC I/O Remote 1, Slot 1 Wiring Diagram” Drawing A00000-16-03-1750
  - ★ Drawing shows the wiring connection for the digital input PLC module which monitors the PSU status and the local switch position for the JT valve motors’ control
- Developing *PLC Rack Layout* Drawing A00000-16-03-0150

### Hall A – GEM Detector Gas System

Peter Bonneau, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen

- Populated five 400 sccm gas flow sensor boards (35 completed)
- Developed 3D model of gas flow sensor chassis layout using NX12



Example of 3D model of gas flow sensor chassis being developed for the Gas Distribution System



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## **Hall B – RTPC**

*Marc McMullen*

- Made two entries into Hall B to repair RTPC pressure transducer cable connections
- Updated pinout documentation

## **Hall B – SVT**

*Brian Eng*

- Updated firmware on the power distribution unit, which provides power to the CVT insertion cart

## **Hall C**

*Mindy Leffel*

- Fabricated two polarized 3He target RTD cables

## **Hall C – Controls & Monitoring**

*Peter Bonneau, Aaron Brown, Tyler Lemon*

- Placed revised version of Hall C Shift Worker’s Checklist Information CSS-BOY screen on the Hall C subnet for review
  - ★ Wrote new script to start program on *cdaq12* Linux machine

## **Hall C - NPS**

*Peter Bonneau, Aaron Brown, George Jacobs, Mindy Leffel, Tyler Lemon*

- CAEN Testing
  - ★ Continued voltage stability testing (with load) using EPICS on CAEN crate and modules
  - ★ Analyzing HV stability test (with load) current data for module #0173 and #0184
- Environmental Monitoring System
  - ★ Researched and developed signal list for NPS Environmental Monitoring System. Signals include:
    - Temperature and humidity sensors
    - N<sub>2</sub> flow meter, heat exchanger fan speed
    - Coolant flow, pressure, temperature, and status of the two NPS chillers
- Five hundred (500) high voltage divider cables fabricated

## **Hall C- HMS/SHMS Magnets CSS Screen Development**

*Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon*

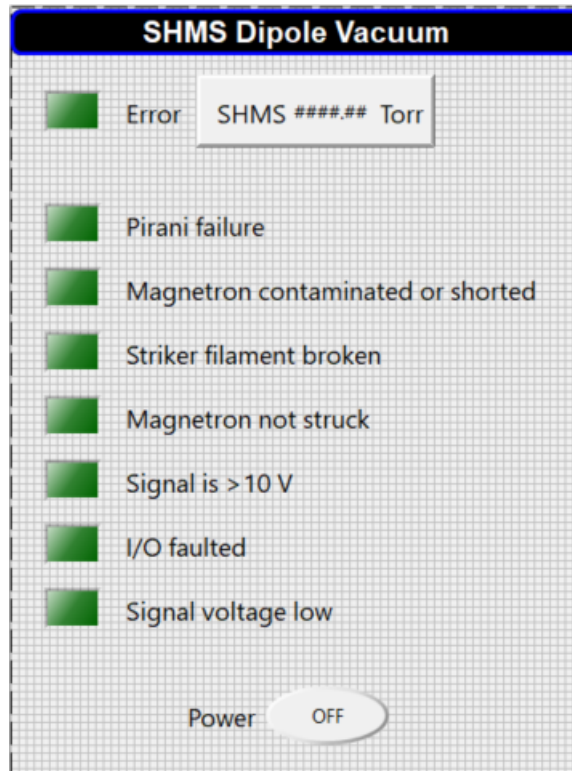
- Completed *SHMS Dipole Vacuum* screen
- Started *SHMS Dipole Interlocks* screen



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Screenshot of *SHMS Dipole Vacuum* screen.

## **EIC**

*Brian Eng*

- Started assembling a list of questions and information to send to detector working groups to help with integration issues

## **DSG – Website Design**

*Mary Ann Antonioli, Peter Bonneau, Aaron Brown*

- Redesign and standardization of Halls A, B, C, D, HDice, and DSG R&D Technical Documentation sections