

# Detector Support Group

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

Weekly Report, 2020-08-12

## Summary

### Hall A – SoLID Magnet Controls

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

- Completed *PLC Rack Layout* Drawing A00000-16-03-0150
- Developing *Instrumentation Rack Layout* Drawing A00000-16-03-0200
- Started relay checks for Constant Current Source board

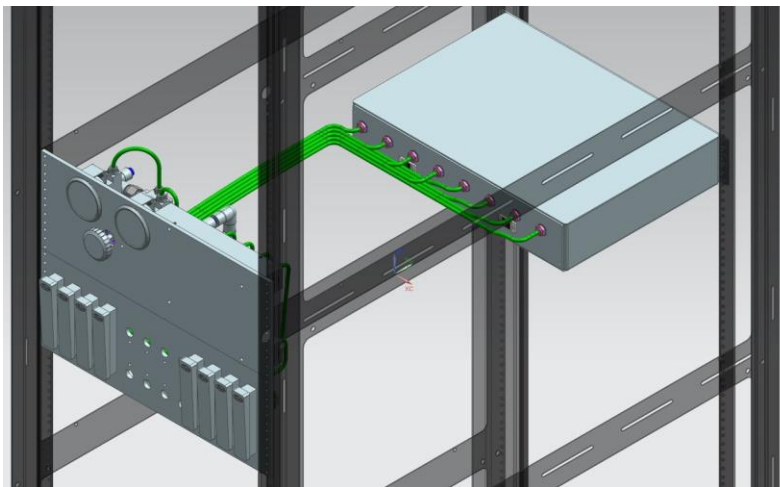


Test stand for Constant Current Source board

### Hall A – GEM Detector Gas System

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

- Generated three-dimensional models using NX12 for gas flow sensor chassis



Three-dimensional model of a gas flow sensor chassis in rack

- Started procurement of multiplexer boards



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## Hall B – Magnets

Brian Eng

- Updated PLC code to not reset current when doing an MPS comms reset for both the solenoid and torus magnet

## HDice

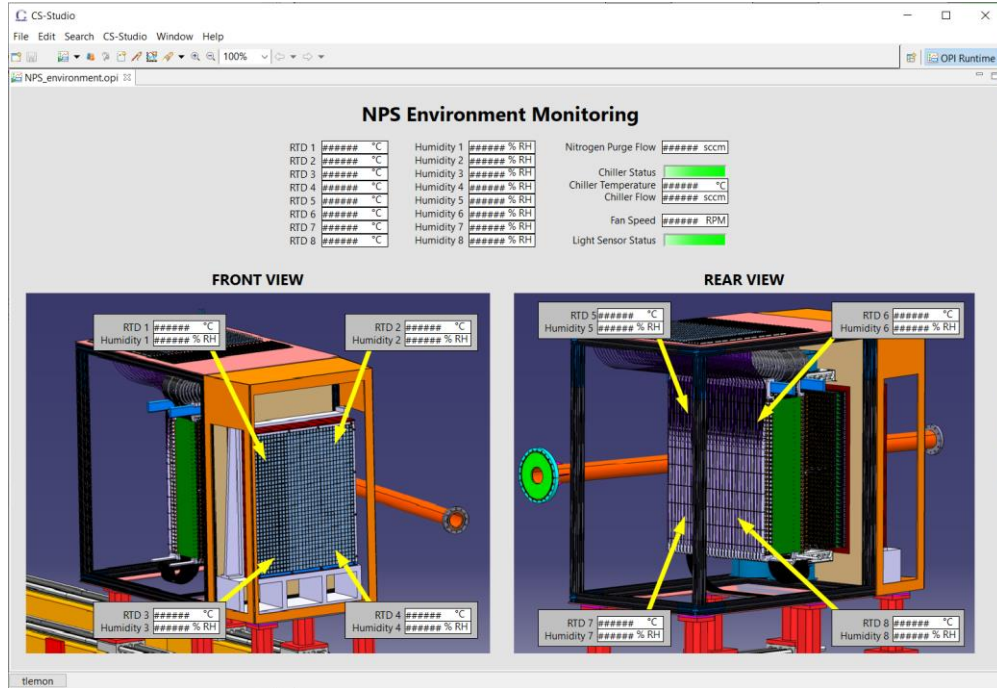
Tyler Lemon

- Debugged NMR PC communication to RS232 and RS485 converters issues

## Hall C - NPS

Mary Ann Antonioli, Peter Bonneau, Aaron Brown, George Jacobs, Mindy Leffel, Tyler Lemon

- Developing CSS and WEDM screens for detector environment monitoring



Proposed NPS Environment Monitoring CSS-BOY screen

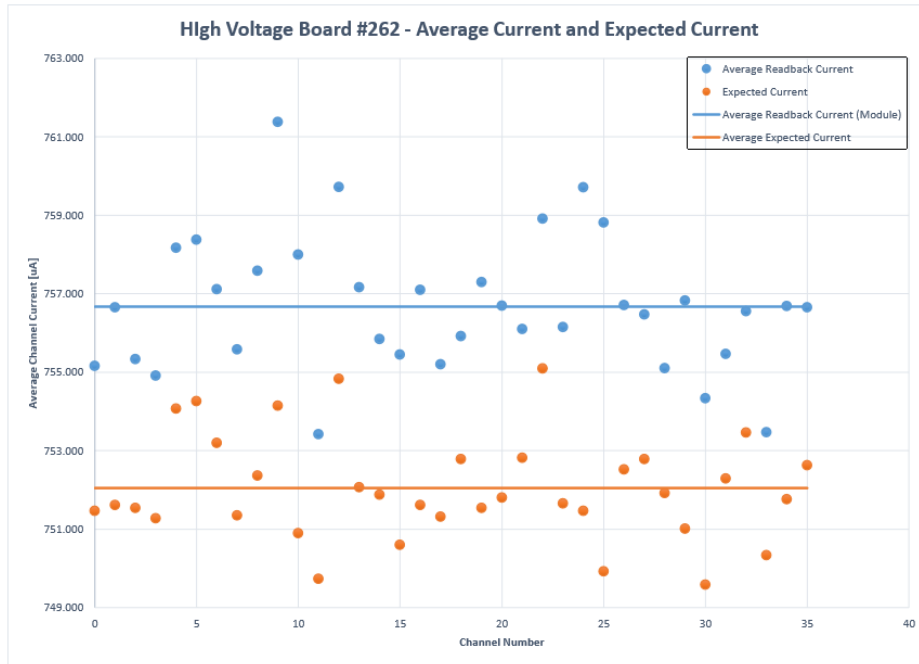
- ★ Investigating fiber optic sensors for measuring humidity in the presence of high radiation
- Analyzing HV (with load) stability test current data for module #262
  - ★ Difference between average expected and readback currents is ~1%



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Excel plot of average expected and readback currents

- Developing NPS Overview CSS-BOY screen
- Creating pop-up voltage/current readback screens for PMT subsections
- Five hundred and eighty of 1100 HV 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 JT Page* screen
- Started *SHMS Dipole Valve Setup* screen

## EIC

*Brian Eng*

- Made updates to Risk Registry for Detector Work Breakdown Structure

## DSG – Website Design

*Mary Ann Antonioli, Peter Bonneau, Aaron Brown*

- Restructuring of the website’s technical documentation sections