

Detector Support Group

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

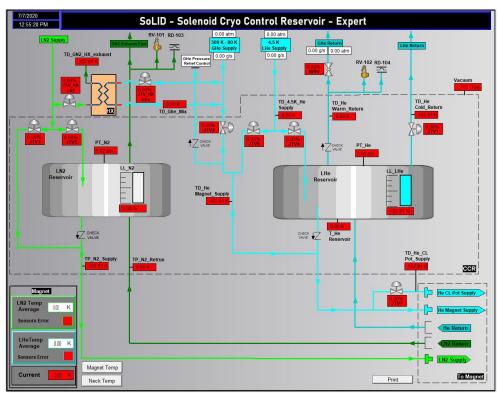
Weekly Report, 2020-07-08

Summary

Hall A – SoLID Magnet Controls

<u>Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, Marc McMullen</u>

- Started continuity tests on Constant Current Source Boards (CCSB)
- Developed PLC code to include heat exchanger instrumentation
 - * Added new code to readout and handle readout errors of temperature sensors
- Completed CCR-Expert HMI screen
 - **★** Includes Heat Exchanger instrumentation
 - * Added controls and monitoring indicators for two JT valves and two diode temperature sensors
 - **★** Valves and temperature indicators have visual features to display faults



CCR-Expert HMI screen

- Developing JT Valve Page HMI screens for JT valves 1 through 7
 - **★** Implemented HMI tags to control 7 JT valves from a single HMI screen
 - * Testing controls and monitoring features on HMI screens
- Developed Driver Motor Wiring Diagram Drawing A00000-16-03-1250

Hall A – GEM Detector Gas Systems

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

• Generated NX12 CAD model of front portion of BigBite gas panel

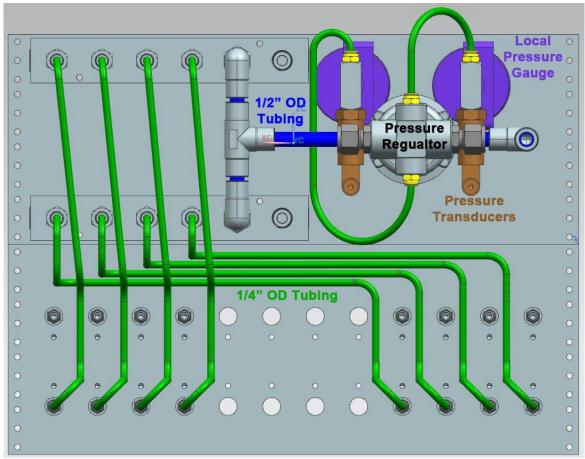


Detector Support Group

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

Weekly Report, 2020-07-08

★ Panel has regulator and rotameters for GEM detectors on BigBite arm



NX12 CAD model of back side of panels with pressure regulator, gauge, and pressure transducer

- Populated 11, 400 SCCM gas flow sensor boards
- Ordered gas flow sensors, PCBs, and connectors for the readout of 50 exhaust lines of the GEM detector's gas distribution system

Hall C - NPS

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

- CAEN high voltage testing
 - * Performed load stability tests on CAEN modules #0336, #0354, #0350, and #0314
 - ★ Analyzing HV stability test (with load) data from modules #0128 and #0317
 - Analysis of board #317: trial 1 all channels failed to reach the set voltage, but analysis for trial 2 was normal
- Terminated 50 high voltage divider cables (total of 390 cables made so far)
- Reviewed NPS ERR documentation regarding detector design, construction, and instrumentation to focus research and selection of sensors and associated readout electronics



Detector Support Group

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

Weekly Report, 2020-07-08

Hall C- HMS/SHMS Magnets CSS Screen Development

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

• Continued development of HMS Quad JT Setup screen

DSG – Website Design

<u>Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, Marc McMullen</u>

- Reorganizing and adding new pages to DSG website
 - * Added technical documents for the Hall A GEM gas distribution system, cRIO test stand, NPS HV test stand, and Hadron Calorimeter
 - * Added new tabs for SBS and GEM detectors
 - ★ Redesigning all Technical Documentation sections including DSG R&D and Hall B