



Detector Support Group

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

Weekly Report, 2020-07-22

Summary

Hall A – SoLID Magnet Controls

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

- Completed *PLC I/O Remote 1, Slot 5 Wiring Diagram* Drawing A00000-16003-1950
 - ★ Drawing shows the wiring connection for relay PLC module used to control JT valve motors
- Developing *PLC Rack Layout* Drawing A00000-16-03-0150
 - ★ Completed drawing of Primary, Secondary, Remote 1, and Remote 2 PLC chassis

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
- Used Python program to view readout of a flow sensor (older, 200 sccm, 3.3 VDC version) via a Raspberry Pi
- Wrote LabVIEW test code to read out flow sensor using Raspberry Pi
- Completed quality control checks on I²C multiplexer printed circuit board

HDice

Peter Bonneau, Tyler Lemon, Marc McMullen

- Tested version of fsNMR program with added cryogenic sensors to ensure proper operation during standby mode
- Continued development of data logger which will record the cryogenic sensor data during standby mode and at the end of each scan

Hall C - NPS

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

- Four hundred and seventy (470) high voltage divider cables fabricated
 - ★ Terminated 30 high voltage divider cables
- CAEN Testing
 - ★ Continued stability testing (with load) using EPICS on CAEN crate and modules
 - ★ Analyzing HV stability test (with load) current data for modules #0128 and #0173
 - ★ Modified Python program for stability testing data analysis
 - New program automatically generates average current and average voltage plots for all boards

Hall C- HMS/SHMS Magnets CSS Screen Development

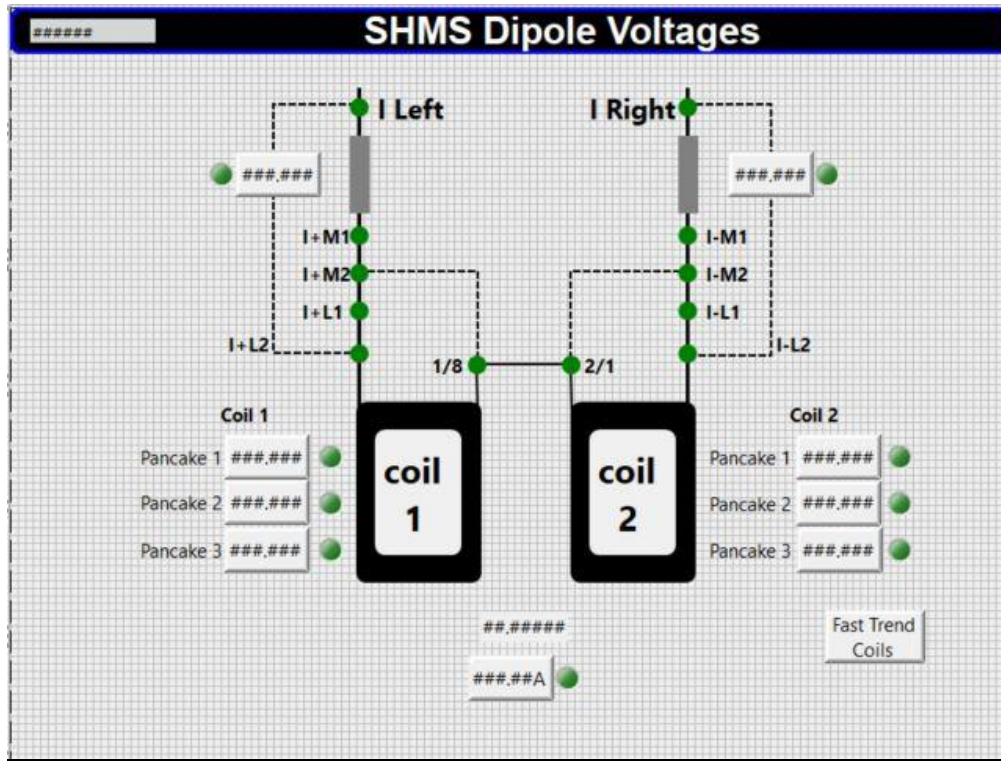
Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon

- Completed *HMS Quad JT Setup, SHMS Dipole Voltages, and SHMS Leak Detector* screens

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Screenshot of the *SHMS Dipole Voltages* CSS-BOY screen

Hall D

Brian Eng

- Finished PXI ADC module calibration
 - ★ PXI controller had issues after reboot, but began working again after several power cycles

EIC

Brian Eng

- Discussed the distance needed between detectors to allow for cabling and services

DSG – Website Design

Mary Ann Antonioli, Peter Bonneau, Aaron Brown

- Redesigned search filter