Detector Support Group
Weekly Report, 2020-01-08

Summary

Hall A – SoLID Magnet Controls
- Developing HMI screen to monitor SoLID Solenoid temperature readouts
  - ✶ Generated isometric view of the inner and outer radiation shields and coil shell to display temperature sensors locations.
- Started adjustments to the routing of the Constant Current Source (CCS) board.
- Received all components needed to assemble 10 CCS boards.

Hall B – BoNuS Target Gas Controls
- Added EPICS PVs to LabVIEW program to monitor and control system.

Hall B – RICH
- Developed dry-box monitoring program in LabVIEW

Hall C – CAEN HV Hardware Testing
- Received 17 new A7030TN boards to test.
- Created new IOC to monitor CAEN HV EPICS PV data
- Developed CSS-BOY screens to control and monitor CAEN EPICS during testing.
  - ✶ JavaScript program developed to turn on/off all channels and set parameters for a single board
    - ▪ Scaling of program to control multiple boards in progress.
- Assembled test load chassis.
  - ✶ Soldered 48 wires to resistors and resistors to boards
  - ✶ Soldered ten ground wires to resistors

Hall C – RTDs for Polarized 3He Target
- Fabricated 20 two-wire RTDs with four magnet wires
- Tested 20 bundles for continuity.

Detector Imaging
- Made test prints of varying shapes and thicknesses using 3D-printer with clear resin to see quality of end product.

DSG R&D – EPICS Data Logger
- Resolved MySQL query time issue
  - ✶ Lack of indexing caused queries to take > 15 minutes to return results
  - ✶ Adding table indices brought query time down to seconds

DSG R&D – MSELV sbRIO
- Tested and debugged excitation and readback for chassis sensors.
  - ✶ Timing adjusted for DAC write to get sensors to initialize correctly.
  - ✶ PT100s, strain gauges, load cells, and Hall sensors read back as expected.