Detector Support Group

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

Weekly Report, 2022-05-25

Summary

Hall A – GEn-II

Mindy Leffel

- Fabricated RTD cables; cut and twisted 12 pairs – 66 of 66 complete

Hall A – SoLID

Pablo Campero, Mindy Leffel, and Marc McMullen

- Developing *Solenoid Interlock* HMI screen
  - ✶ Created indicators and reset buttons for the hardware quench detector interlocks
  - ✶ Added indicators for software quench detector interlocks

Hall B – LTCC

Brian Eng and Marc McMullen

- Updating gas system to use the same pressure readout setup for S2 & S6 as currently deployed for S3 & S5
  - ✶ Connected four Dwyer differential pressure transducers to the controls & monitoring chassis
  - ✶ Each sector has a sensor for the controls and an identical sensor for the Omega DP-25 process controller (safety system)

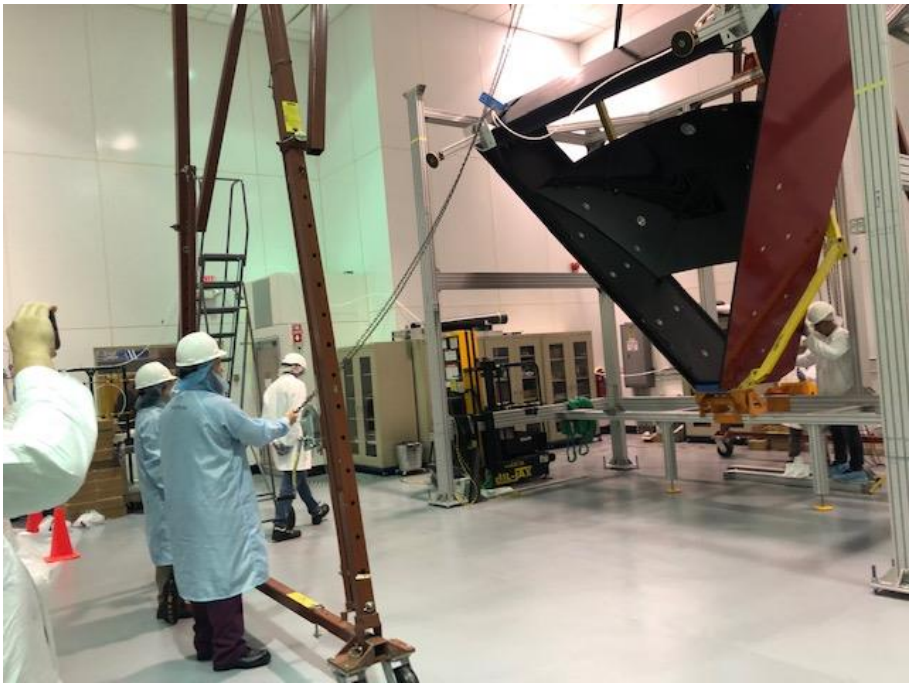
Marc McMullen connecting a Dwyer differential pressure transducer on LTCC S6 in Hall B

- Upgraded forward carriage and gas shed cRIOs to 2021
  - ✶ No issues with forward carriage cRIO; gas shed cRIO has rebooted itself a few times, needed a hard reboot to get back online
- Fabricated six of eight cables (four relay cables and two solenoid control cables)

Hall B – RICH-II

Mary Ann Antonioli, Peter Bonneau, Pablo Campero, Brian Eng, George Jacobs, Tyler Lemon, and Marc McMullen

- Installed stiffening tool on detector
- Rotated detector frame to vertical position



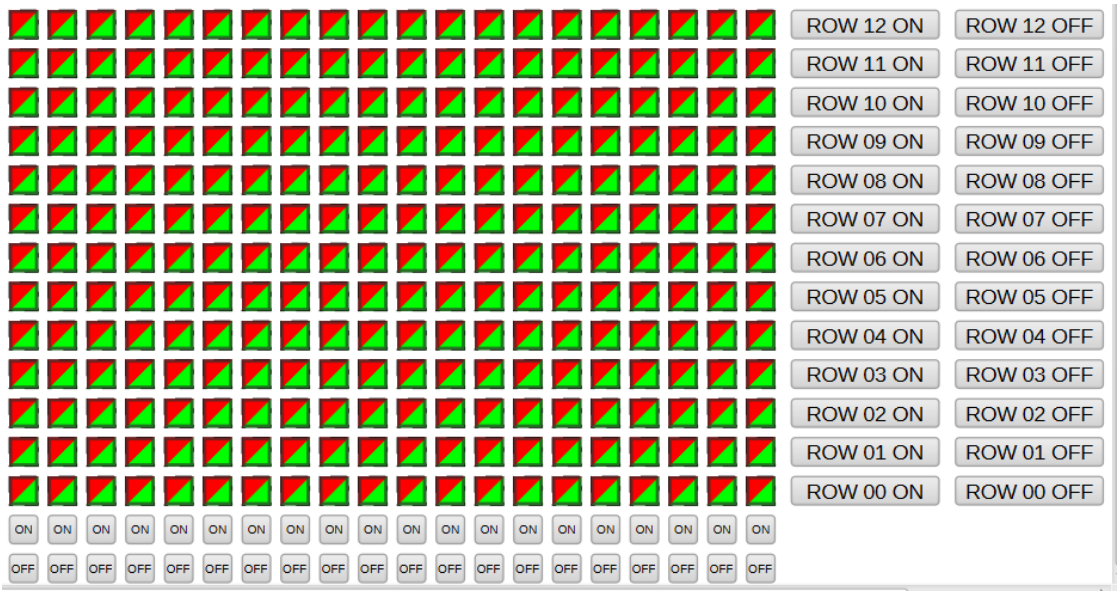
Brian Eng, George Jacobs, Tyler Lemon, and Marc McMullen performing the RICH-II rotation

- Set up d0 and reflectivity test stations in small cleanroom – performed d0 and reflectivity tests on spherical mirrors
- Fabricated three RJ45-to-Molex cables

Hall C – NPS

Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, and Marc McMullen

- Developing hardware interlock LabVIEW program
  - ✶ Adding code to calculate dew point for detector frame and hall (ambient)
- Developing EPICS Phoebus screens
  - ✶ Revising Overview controls & monitoring screen – added buttons to turn on/off all CAEN high voltage channels in a row and a column



Screenshot of portion of Overview Phoebus screen

- Glued two high voltage supply cable Radiall connectors – 34 of 40 complete
- Testing high voltage supply cables using Python – 21 of 40 complete

Hall D – JEF

Mary Ann Antonioli, Aaron Brown, George Jacobs, and Mindy Leffel

- ESR foil pre-shaping – 1083 of 1600 foils complete
- Wrapped 19 crystals with ESR foil and Tedlar

EIC

Pablo Campero, Brian Eng

- Using Ansys Fluent, conducted simulation for model with separation of 4 mm between the outer face of the Be pipe and the Si sensor layer 1
- Attended Detector 1 and Silicon Consortium meetings