

Detector Support Group

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

Weekly Report, 2021-08-11

Summary

Hall A – HV

Brian Eng

• Completed initial Python script to generate a Phoebus EPICS screen (*Hall A Main Menu*)

Hall A - SoLID

Mary Ann Antonioli, Pablo Campero, Brian Eng, Mindy Leffel, Marc McMullen

- Completed electrical drawings: A00000-16-03-0262, *-0305, *-0312, and *-403
- Updated *Drawing List* spreadsheet with the most recent completed drawings

Hall B - RICH-II

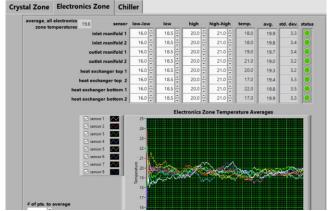
Mary Ann Antonioli, Peter Bonneau, Pablo Campero, Brian Eng, George Jacobs, Tyler Lemon, Marc McMullen

- Created, using NX12, model of Backplane PCB with RJ45 ports to determine space in hardware interlock chassis
 - ★ Model assists in determining standoff length for PCB and how much space it would take up in the chassis
- Completed N₂ purge system and air cooling system piping and instrumentation diagrams and components lists

Hall C - NPS

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

- Revised LabVIEW Keysight scanning program to remove unnecessary subVIs; no need to configure scan or trigger before taking a measurement
- Using Ansys, conducted thermal analysis of 3x3 block of PbWO₄ crystals surrounded by a 1.2 cm Cu shell
- Generated *Electronics Zone* tab for LabVIEW Hardware Interlock Monitoring program



Screenshot of LabVIEW Hardware Interlock Monitoring program Electronics Zone tab



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• Researched components for the design of the instrumentation and chiller radiation shielding area to be located behind the SHMS magnets

EIC

Brian Eng

• Reviewing updated silicon design, tracking layers (barrel regions 1-3); have since switched to curved ALICE ITS-3 style sensors instead of ITS-2 style staves

DSG – CAEN HV Test Stand

- Cut 48 of 48 cables to three foot lengths
- Inserted grommets in Radiall-to-SHV adapter panel; started pulling SHV cables through grommets (24 of 48 complete)



Front (left) and top (right) views of SHV cables pulled through adapter panel grommets