

Detector Support Group

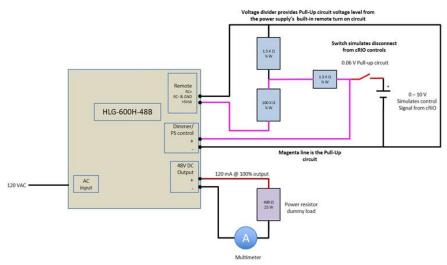
We choose to do these things "not because they are easy, but because they are hard".

Weekly Report, 2024-01-10

Hall A – ECAL

Marc McMullen

- Ordered two expansion chassis to read out crystal and light guide temperatures
- Developed pull-up circuit that will keep the heater power supplies from outputting full voltage if the controls signal becomes disconnected
 - **★** Bread-boarded the circuit for testing using an ECAL MeanWell 600-W supply

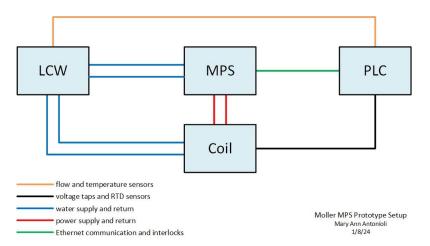


Power supply pull-up circuit test.

Hall A - Møller

Mary Ann Antonioli, Brian Eng and Marc McMullen

- Continued setting up TM3 MPS in Test Lab Highbay
 - **★** Configured networking
 - **★** Tested softIOC with new controller; no issues
- Made Visio drawing of setup



• Completed initial magnetometer PCB design

Prostor Bolton

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Hall B - LTCC

Marc McMullen

- Troubleshot inoperable solenoids for sector 6
 - **★** Omega process controller was not functioning, which prevented the controls from turning the solenoids on (supply or return)
 - ★ Connected all sector 6 Omega connections to the spare Omega on sector 1; issue resolved

Hall C - NPS

Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, and Tyler Lemon

- Debugging control and monitoring LabVIEW program, vers. 2.
 - ★ Controls and indicators on the front panel of the LabVIEW program were not initializing properly, if at all, because they are local variables, but shared variables are used in the program
 - To resolve, bound each local variable on the LabVIEW front panel to its shared variable
 - * Arrays used to determine trip time and trip delays were not correct length
 - Changing execution mode of subVI resolved the problem
 - ★ Because the crystal zone front and crystal zone back were changed from two arrays each to a single array each, all crystal zone front and crystal zone back arrays were combined into one array each in the 16 subVIS that build and breakout arrays
- Making plots of front and back crystal temperatures vs ambient temperature
- Evaluating five 140' high voltage cables that cause channel trips
 - ★ No obvious problems on Samtec connector side and some minor issues with Radiall side
 - **★** Completed ePAS for testing five cables with load box

Hall D - FCAL2

Mindy Leffel

- Populated 90 PMT bases; 1200/1750 completed
- Cut and stripped 450 wires

EIC - DIRC

Peter Bonneau, Brian Eng, George Jacobs, Tyler Lemon, and Marc McMullen

- Developing error handling code to support Phoebus alarm system test
- Completed modification instructions for the shipping crates
- Created PR 427083 for shipping crate hardware and air spring pneumatic system
- Continued laser interlock system enclosure setup

EIC - RICH

Tyler Lemon

 Set up new UV reflectivity test station components for a basic functionality test of reflection measurement optics



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DSG

Peter Bonneau

- Upgraded DSG website photolog development software
- Added new section and photos for Hall A LAPPD to DSG website photos
- Added photos to website for Hall A ECAL and EIC DIRC