



Detector Support Group

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

Weekly Report, 2021-02-03

Summary

Hall A – GEM

Peter Bonneau, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen

- Terminated 80 of 272 LEMO connectors; 80 BNC to LEMO cables complete

Hall A – SoLID

Pablo Campero

- Tested, successfully, one of eight CCS boards; all relays function and current draw is constant at ~100 μ A

Hall B – RICH II

Peter Bonneau, Tyler Lemon

- Determining components needed for development of Sensirion SHT-35 temperature sensor based interlock system
- Developing LabVIEW program to read SHT-35 temperature sensors

Hall B – SVT

Peter Bonneau, Mindy Leffel

- Tested, successfully, chiller interlock circuit to verify appropriate system operation after the installation of the cable quick disconnect system

Hall C – NPS

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

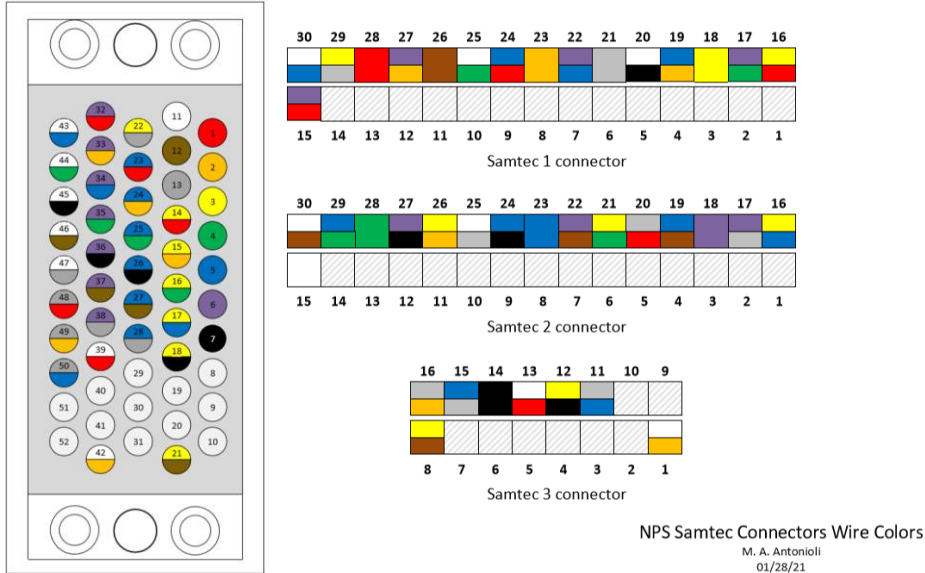
- Investigated methods of attaching temperature/humidity sensors within detector frame
 - ★ RTD temperature sensors can be epoxied directly onto the metal surfaces of the heat exchangers and coolant manifolds
 - ★ Humidity sensors will be mounted on a PCB and can be mounted to the detector frame with cable ties
 - ★ Dual sensors will be used in each measurement location
- Developing block diagram to show planned components of Hardware Interlock System
- Designing chassis for testing HV cable Radiall 52 to SAMTEC connectors
- Terminated SAMTEC connector end of Radiall 52 to SAMTEC connectors of HV cables; one of 40 cables completed and tested
- Completed all 1080 PMT Settings screens
- Compiled voltage ramp testing plots for all 33 HV CAEN modules, 1188 channels
- Attended NPS Collaborator's Meeting and presented [DSG NPS Update](#)
 - ★ Discussions included plans to test detector after assembly in the Test Lab (HV and cooling systems), NPS software development, planned experiments, and Hall C infrastructure requirements (detector frame support, cable runs)
 - ★ Uploading all presentations to [NPS Collaborators' Meeting 2021 \(Virtual\)](#) tab in Readings section of NPS technical documentation webpage

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- Generated Visio drawing of wire color connections of Radiall 52 and SAMTEC connectors of HV cables



Wire connections between Radiall 52-pin (left) and SAMTEC connectors (right) for multi-conductor HV cable assembly

EIC

Brian Eng

- Pre-CD1 meetings completed; no final report as of yet, but all subcommittees recommended to proceed to CD1