



Detector Support Group

Weekly Report, 2019-06-19

Hall A - HCAL

- Removed labels from cables and terminated 28 BNC ends and 16 LEMO ends.

Hall A – Bigbite - ECAL

- Assembled three more Supermodules (in all 31).

Hall B – Gas System

- Submitted PRs for continued funding of Hall B bulk liquid Ar and N₂ contracts.

Hall B - LTCC

- Developing gas supply and purification CSS-BOY screens to replicate LabVIEW GUI.

Hall B - RICH

- Developed automatic error handling for FPGA code for Sensirion humidity and temperature chip SHT85.

Hall B – HDice

- Stepper motor's power supply, which controls proportional valve, is in working order.

Hall C - HV EPICS Test Station

- Generated diagram of HV EPICS test station setup.
- Modified mainframe status screen to control and monitor main parameters of SY4527.
- Started testing of A7030N high voltage modules.

Hall C EPICS

- Developed four Java scripts to calculate top, left, right and bottom average forces in SHSM horizontal bender magnet.
- Developed seven CSS-BOY screens to display plots of forces vs time for SHMS horizontal bender and dipole magnets.
- Updated spreadsheet with all PVs required for new CSS-BOY screens.

Hall D – EPICS

- Creating WEDM screens from existing Hall D CSS screens using Python-based CSS-BOY-to-WEDM conversion program for remote monitoring.

DSG R&D – cRIO Test Station

- Set up Krohn-Hite power supply to be used for NI 9219 current tests.
- Wrote NI 9219 current tests for samples, mean, accuracy, and standard deviation, differential nonlinearity, dynamic range, gain error, integral nonlinearity, and offset error. Tested, debugged, retested. Manual current tests completed.