Detector Support Group
Weekly Report, 2019-06-05

Summary

Hall A - HCAL
- Completed labeling of HV cables.
- Working on signal cables.

Hall A – Bigbite - ECAL
- Assembled ten Supermodules.

Hall B - RTPC
- Completed connections to flow gas.
- Performed gas flow and leak check tests on valve panel.
- Developed LabVIEW programs to log pressure and flow data for EEL test stand and to set and automatically change $HeCO_2$ flow over full range of MFC.
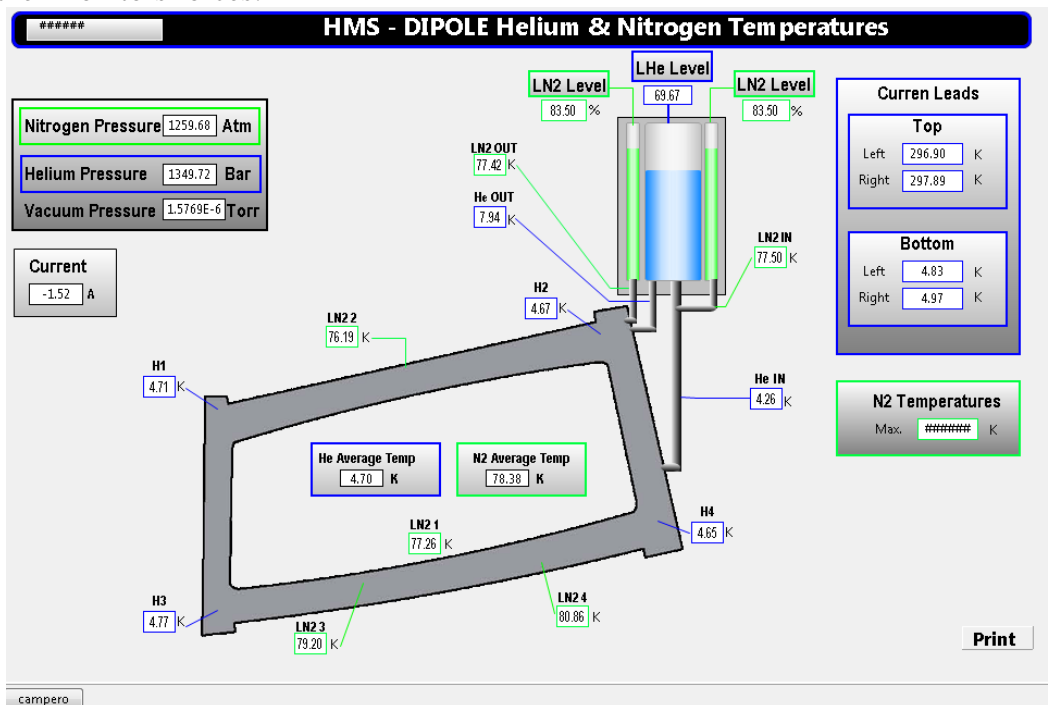
Hall B – Gas System
- Swapped faulty 9035 cRIO with spare 9045 cRIO in gas shed.
- Set up Expansion Chassis in gas shed to provide additional slots for modules.

Hall B - LTCC
- Added relay to MFC power chassis for remote resetting of associated MFCs.

Hall C - EPICS
- Developed two CSS-BOY screens for HMS; one monitors LHe and LN_2 temperatures, the other monitors forces.

CSS-BOY screen for monitoring of He and N_2 temperatures

- Generated 3D AutoCAD model of HMS dipole, based on HMI screen.
- Embedded script in control widgets on list-view screens implemented to allow readback PVs to be displayed on screen while still allowing user to change control PVs.
- Generated user manual for Hall C CSS High Voltage system.
- Installed Ether/IP driver on development PC for long-term stability test of EPICS-to-PLC communication.
- Created WEDM voltage tap screens for SHMS and HMS magnets.

Hall C - HV EPICS Test Station
- Added process variables of Boolean and Analog data types to EPICS IOC database.
- Downloaded and installed EPICS Sequencer V.2.2 on PC.

DSG R&D – cRIO Test Station
- For NI 9219 RTD test, developed LabVIEW program for differential nonlinearity, dynamic range, gain error, integral nonlinearity, and offset error tests; options added to user interface.
- Tested, debugged, and retested program. Test program for RTD manual testing completed.

DSG R&D – PLC Test Station
- Developed routine to test smallest input voltage sensed by DI module (1769-IQ16).