# Detector Support Group 

Weekly Report, 2019-04-10

## Summary

## Hall C EPICS

- CSS-BOY monitoring screens developed and converted to WEDM for SHMS Dipole and HB helium and nitrogen temperatures.


SHMS Dipole Helium \& Nitrogen Temperatures Left: CSS-BOY. Right: WEDM.


SHMS HB Helium \& Nitrogen Temperatures Left: CSS-BOY. Right: WEDM.

- SHMS cryogenic graphical monitoring screens added to Accelerator's main menu.
- CSS-BOY GUI and Python backup program developed for HV system.
- PLC program and IOC configurations successfully developed and tested to monitor SHMS/HMS PLC and EPICS heartbeats.


CSS-BOY screen for communication test between PLC and EPICS.

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## Hall C CAEN Test Station

- Voltage verification completed for five of nine modules.
- Macros developed in Excel/VBA to generate plots of voltage set point, CAEN mainframe voltage readback, and externally measured voltage.


## RICH

- Air-cooling buffer tank's pressure transducer (PT) reading has been steadily dropping from ~100 psi to $\sim 30$ psi since November 2018.
* Compressor's local output pressure readback and the local pressure gauge on buffer tank were reading $\sim 80 \mathrm{psi}$, indicating that PT may be failing.
* Alarm/trip limits for PT lowered to avoid trips


## RTPC

- Gas interface chassis received.


## Hall A HCAL

- BNC-to-LEMO cables untangled, unbundled, measured, sorted, and re-bundled.
* See spotlight photo on DSG website.


## Engineering Division

- About 500 components (capacitors, resistors, fuses) soldered on BPMs, completing front side of four boards.


## DSG R \& D

## Sensiron SHT85

- Long-term DAQ study of a single SHT85 assembly successfully completed using test program developed on NI sbcRIO-9627.


## cRIO Test Stand

- For NI 9216 module, tests developed for differential nonlinearity, dynamic range, gain error, and integral nonlinearity.

