

Summary

Hall A – BigBite Shower Calorimeter

- 33 of 64 blocks wrapped (52% completed)
- Set up second assembly area so multiple people can work on wrapping blocks at one time

Hall A –GEM Gas System

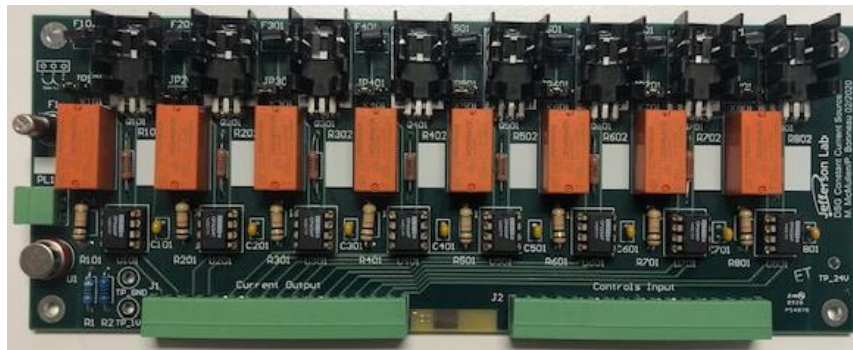
- Development of the connection scheme for the gas flow sensors in progress
 - ★ Need information on where the actual readout board will be located since I²C cannot handle long cable lengths
- Assembly of GEM gas system manifolds (below) in progress



- Gas lines ordered after providing a sample to Hall A for study
- System tests for UVA GEMs to begin immediately after panel is assembled and tested
- INFN GEM testing will begin after detectors are moved to a test location in the Test Lab

Hall A – SoLID Magnet Controls

- Continued working on drawing #0450 of temperature sensors’ wiring diagram
- Made drawings #2400 (voltage tap cables), #2500 (radial strain gauge cables), #2550 (axial load cell cables)
- Generated *SoLID I&C Diagram*
- Developing *Cryo Control Reservoir Instrumentation* HMI screen
- Developing NX12 3D model to show Outer and Inner Radiation Screens’ honeycomb panels
- Constant Current Source (CCS) boards received and populated



Populated Constant Current Source (CCS) board

Hall B Magnets Controls

- Tested different versions of code to communicate directly with the Cryo-con units
 - ★ One version from Cryo uses TCP sockets to send/receive SCPI commands
 - ★ Other is an Add-On Instruction (AOI) from Rockwell that uses MODBUS/TCP
 - The AOI was faster to setup, however it includes a lot of MODBUS functionality that we don’t need/want, so its slower to execute

Hall B – RICH

- Fabricated three I²C repeaters and shortened two, four conductor ribbon cables

Hall B – SVT Destructive Tests

- Still getting failures on register 16, which sets the number of data lines to use.
 - ★ Test is going past the allowable range (1 – 3), then reporting a failure.
 - ★ Reason for behavior is under investigation

Hall C – CAEN HV Hardware Testing

- Continued CAEN crate and A7030TN HV card testing with load
- Received new HiVoCS firmware upgrade (version 1.6.3_beta) to fix EPICS service issues from CAEN tech support
- Reset the safety interlock loops for 3 A7030TN modules
- Started populating second HV test load board
 - ★ Cut, stripped, and trimmed 48 wires and started soldering

Hall C – Magnet HMI to CSS Screen Conversion

- Tested and debugged HMS Status screen
- Completed SHMS Q1 PSU Setup screen

Hall D – PLC

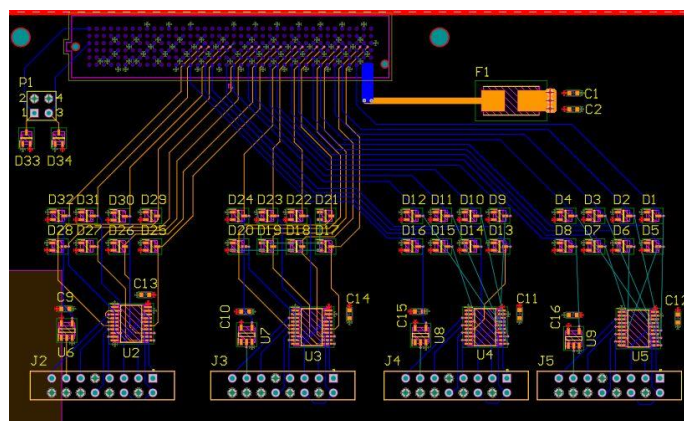
- Compiled task list for new controls projects
 - ★ Project 1: Remote PointIO
 - Move existing 0 – 5 V signals to a remote PointIO chassis
 - Currently, signals are routed to FCAL downstream PLC with ~40ft cables
 - ★ Project 2: Ethernet/IP for chillers
 - Add capability to control and monitor chillers using Ethernet/IP protocol
 - Current interface is for monitoring only and chillers communicate to PLC using MODBUS
- For Remote PointIO project, reviewed existing PLC code to confirm number of analog input channels needed
- For Chiller Ethernet/IP project, investigated controller unit needed
- Installed RSLogix5000 version 20 on *HallDSC9* for PLC development
- Configured DSG’s CompactLogix PLC and moved it to the Hall D subnet

DSG R&D – EPICS Data Logger

- Moved MySQL database that was previously on *dsg-b-linux1* to *DSGCOMP10* windows machine
 - ★ Most likely, the size of the database was slowing down the previous machine to the point that Grafana would no longer work properly
- Set up Grafana on *DSGCOMP10*

DSG R&D – MSELV Chassis

- MSELV Chassis RIO Mezzanine Card (RMC) PCB routing in progress



MSELV Chassis RMC in Altium with routing in progress

Engineering Division

- Soldered 220 capacitors, 40 resistors, and four varistors on Beam Position Monitors