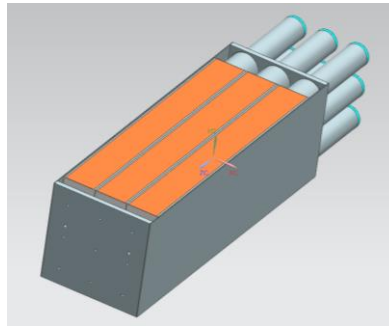


Summary

Hall A – ECal

George Jacobs, Mindy Leffel, and Marc McMullen

- Developing NX12 model of Supermodule for use in Ansys thermal analysis



NX12 three-dimensional model of ECAL Supermodule

Hall A – GEM

Brian Eng, George Jacobs, and Marc McMullen

- Modified GEM flow readback software to restart automatically after a connection loss to the pressure sensor

Hall A – GEn-II

Mindy Leffel

- Fabricated and tested two of six feedthrough cables
- Fabricated and tested eight of 42 twisted-pair cables

Hall A – SoLID

Pablo Campero, Mindy Leffel, and Marc McMullen

- Completed *Solenoid Menu* HMI screen – combined menu and overview HMI screens



Solenoid Menu HMI screen



Detector Support Group

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

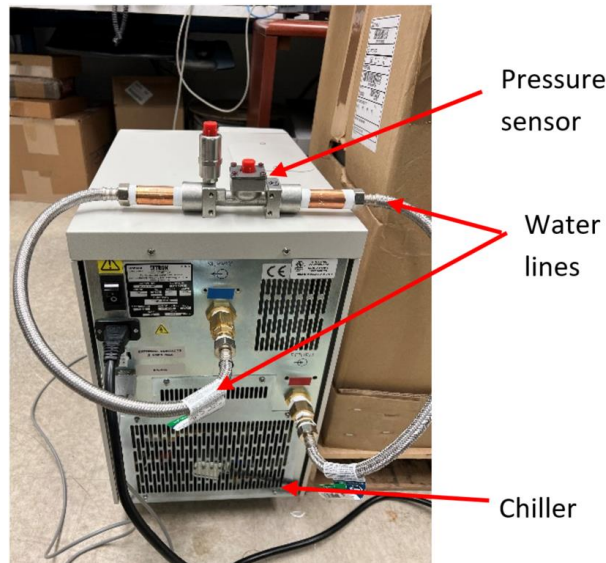
Weekly Report, 2022-07-27

- Generated new version of HMI project file on distributed network model to allow multiple clients access at the same time
- Debugged PT-102 temperature sensors
 - ★ Verified voltage input range for Dataforth modules

Hall C – NPS

Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, and Marc McMullen

- Continued revisions of Phoebus screens
 - ★ Added low limit inputs to each control screen
 - ★ Added date and time to all screens
- Added interlock loops to high voltage supply cable #22
- Installed two 20” loop-back water lines and pressure sensor on Kodiak RC006 chiller for chiller communications testing



Hall D – JEF

Mary Ann Antonioli, Aaron Brown, George Jacobs, and Mindy Leffel

- ESR foil pre-shaping complete - 1807 foils total

DSG R&D – EPICS Alarm System

Peter Bonneau

- Completed development, debugging, and testing of Hall C NPS alarm system Kafka streams for Phoebus 4.6.10 upgrade
 - ★ Developed configuration scripts to create Kafka 2.13-3.2.0 streams specific to Hall C NPS alarm system
 - ★ Successfully tested the three Kafka NPS alarm system message streams using the configuration scripts



Detector Support Group

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Weekly Report, 2022-07-27

- Developing a Phoebus 4.6.10 alarm server XML configuration file formatted for the softIOC test PVs
 - ★ At startup of the alarm server, an XML file will be imported with the alarm settings for each monitored PV
 - ★ Configuration settings for each PV – monitoring enable, guidance on how to respond to the alarm, alarm annunciate enable, alarm trip delay, links to user interface displays, automated actions (email), and commands (user defined scripts)

DSG R&D – PXI

Peter Bonneau and Tyler Lemon

- Developing Peer-to-Peer streaming VIs that read/write at full speed capability of FPGA modules
 - ★ FPGA of PXIe-7971R module toggles a Boolean constant and writes data to stream at 200 MHz
 - ★ FPGA of PXIe-7846R module reads two elements from stream at 100 MHz and writes those elements to an FPGA-to-Real-Time FIFO buffer
 - ★ Real-Time program running on PXI reads data from FIFO buffer at ~45 kHz
 - ★ Investigating method of reading data from FPGA-to-Real Time FIFO buffer at a rate which will prevent buffer from immediately filling up
 - Investigating how to get multiple data points from buffer in one reading so buffer does not fill up