# Summary

Hall A – SoLID Magnet Controls

Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, Marc McMullen

- Created CSS-BOY screen: *Solenoid JTV Page*
- Updated database spreadsheet with PLC tags and proposed PVs for the generation of CSS-BOY screens
- Generated list for SoLID Solenoid HMI and CSS screens
- Reviewed quench detector interlock PLC routines
- Developing *Energy Dump* and *Constant Current Source* wiring diagrams

Hall A – GEM Detector Gas System

Peter Bonneau, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen

- Multiplexer PCB sent out for manufacturing
- Developed, using LabVIEW, a flow readout executable to run on Raspberry Pi
- Generated, using NX12, three-dimensional model for exhaust flow sensor boxes and exhaust multiplexer box
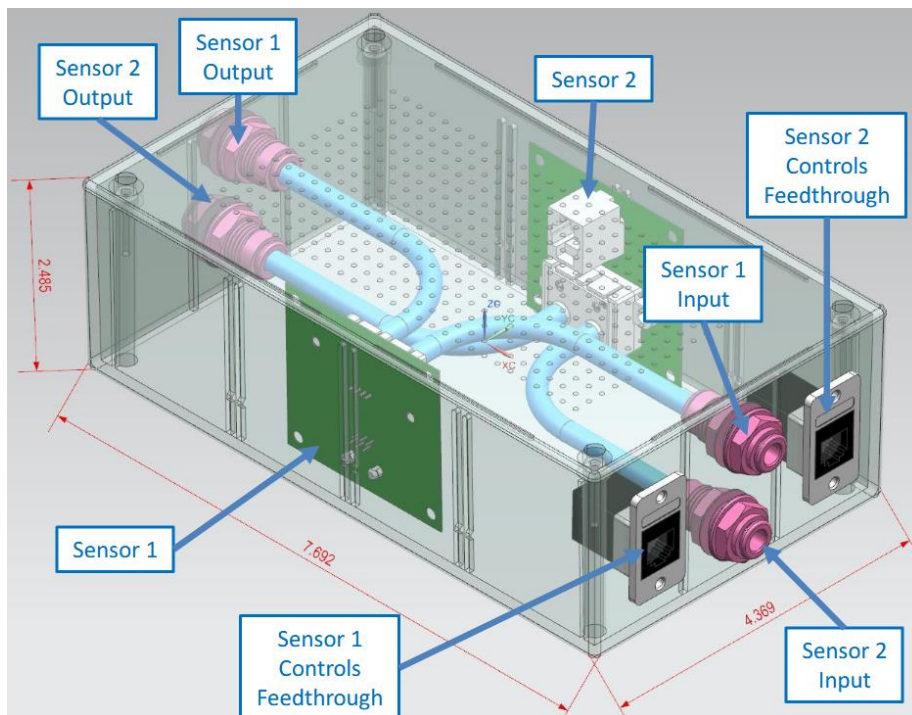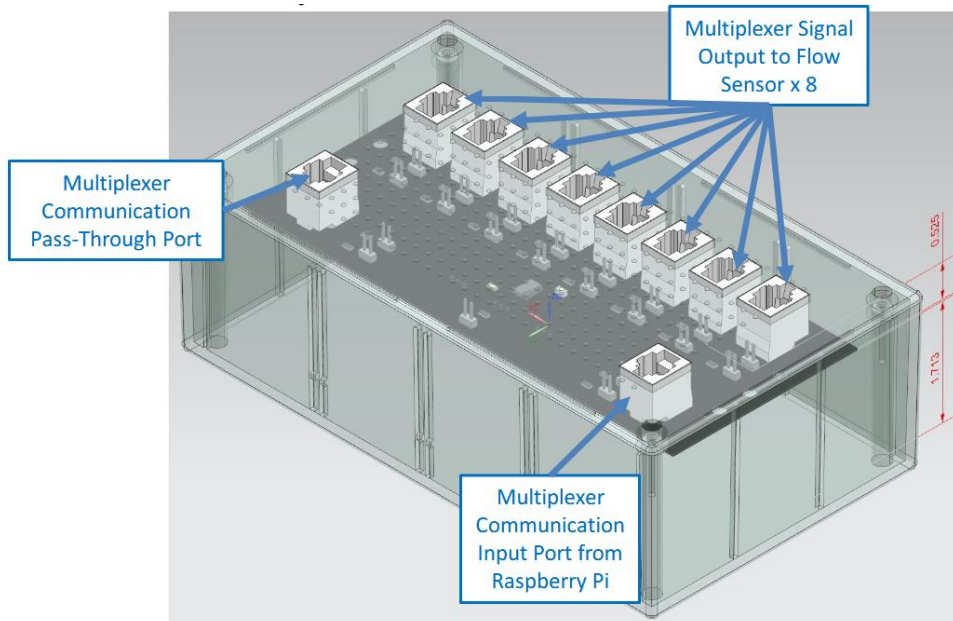

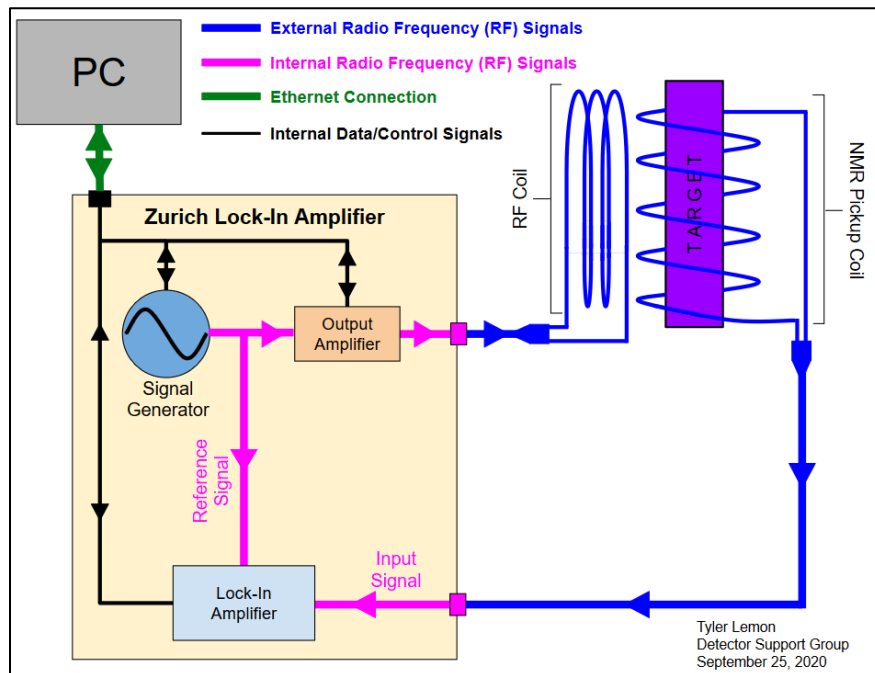
3-D model of exhaust flow sensor box

3-D model of exhaust flow sensor box with multiplexer

HDice – fsNMR Program

Peter Bonneau, Tyler Lemon

- Developed, in LabVIEW, dual power supply control VI to allow for remote control of two Oxford iPS 120 power supplies via GIPB
- Created system diagram for fsNMR version that uses the Zurich lock-in amplifier

System diagram for fsNMR program using Zurich lock-in amplifier

Hall C - NPS
Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, George Jacobs, Mindy Leffel, Tyler Lemon

- Completed 180 of 1080 PMT voltage and current limit settings for CSS-BOY screens
- Generated plots, using Python, for all voltage stability and current stability tests
- Researched CAEN manufacturer's specifications for temperature monitoring of individual modules
  - ✶ Modules will not enter an "OVER_TEMP" state until internal temperature is > 65°C
  - ✶ There is no documentation to specify what happens when module is in an "OVER_TEMP" state; reached out to CAEN for clarification
- Eight hundred and thirty of 1100 high voltage divider cables fabricated
- Analyzing, with Excel, HV (with load) stability test voltage and current data
  - ✶ Sixteen of 32 modules' current data; 32 of 32 modules' voltage data

EIC
Brian Eng

- Attended second of two Earned Value Management System (EVMS) trainings

DSG – Website Design
Mary Ann Antonioli, Peter Bonneau, Aaron Brown

- Continued updating all DSG technical documentation sections