



Detector Support Group

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

Weekly Report, 2021-04-14

Summary

Hall A – GEM

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

- Fabricated one gas flow sensor chassis; three of six complete

Hall A – HCal

Mindy Leffel

- Terminated 20 RG-58 LEMO-to-LEMO cables; 60 of 60 complete

Hall A – SoLID

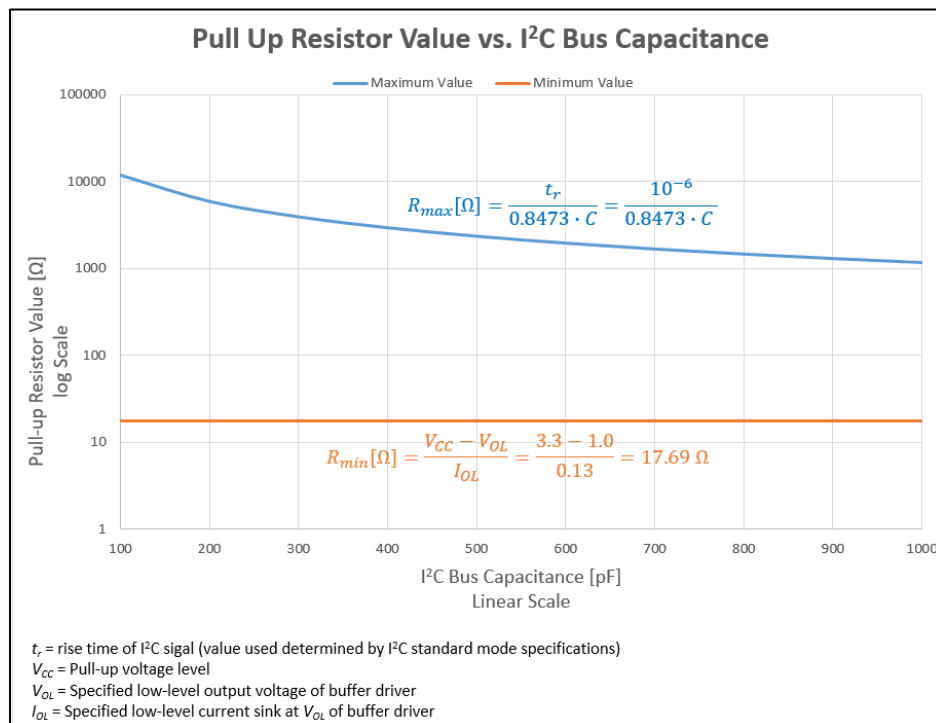
Mary Ann Antonioli, Pablo Campero, Mindy Leffel, Marc McMullen

- Generated table with specifications for temperature sensors installed in the magnet, Cryo Control Reservoir, and heat exchanger
- Researching cables needed for voltage taps and temperature sensors

Hall B – RICH-II

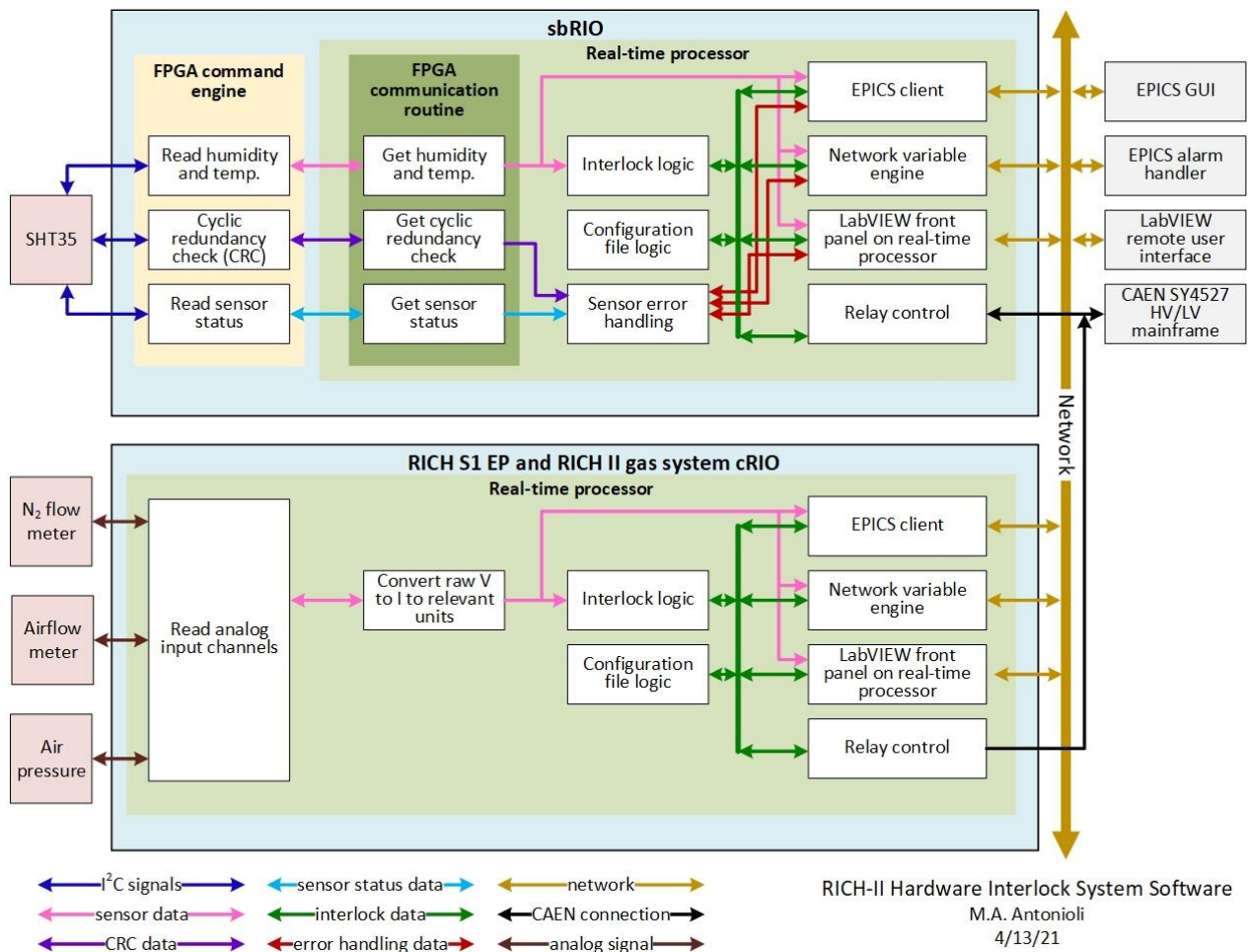
Mary Ann Antonioli, Peter Bonneau, Tyler Lemon

- Analyzed maximum and minimum pull-up resistor values for reading out SHT35 sensors
 - ★ Minimum value determined by voltage and current output of device
 - ★ Maximum value determined by I²C bus capacitance



Plot of pull-up resistor value vs. I²C bus capacitance

- Developed hardware and software block diagrams for the hardware interlock system



Software block diagram for RICH-II hardware interlock system

- Updated LabVIEW development library and drivers to support sbRIO Model #9629

Hall B – SVT

Brian Eng

- Reinstalled R1 cables to modules (LV, HV, pulser, SC, and data)

Hall C – NPS

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

- Developed Python program to log EPICS current readback data for one HV supply cable no-load test
 - ★ Program wrote current readback values for three channels to a text file over a 12 hour period (once every second)
- Researched instrumentation and sensors for coolant leak detection system for crystal and electronics zones



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- Seven of 40 HV supply cables fabricated
- Completed fabrication of HV supply cable test chassis

EIC

Brian Eng

- Held meeting with Ron Lassiter and Will Sapp (from JLab) to give overview of tracking detectors and what is needed for the initial design effort
- After looking into ALICE discs some more, it seems there won't be enough space to use a design based on that (only ~10 mm radially available)