



Detector Support Group

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

Weekly Report, 2021-04-28

Summary

Hall A – GEM

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

- Generated 11-page Visio flowchart of BigBite gas flow Python code

Hall A – SoLID

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

- Completed electrical drawing: *Analog Input PLC I/O Module Wiring Diagram*

Hall B – RICH-II

Mary Ann Antonioli, Peter Bonneau, Pablo Campero, Tyler Lemon

- Developing LabVIEW front panel for hardware interlock system
- Reconfigured and compiled the hardware interlock program project file to support the new instrumentation and the National Instruments 9629 sbRIO controller
- Integrating SHT35 prototyping LabVIEW program into hardware interlock program
 - ★ Debugging sensor status readback
 - ★ Modifying FPGA program to decrease size and memory allocation
- Compiled list of items to procure for hardware interlock system

Hall B – SVT

Brian Eng

- Added three additional HTSB boards to patch panel
- Found humidity was extremely high (~70%) inside of the plastic bag that is covering the SVT itself past the L1C area
 - ★ There is water pooling in the bottom of the bag

Hall C – NPS

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

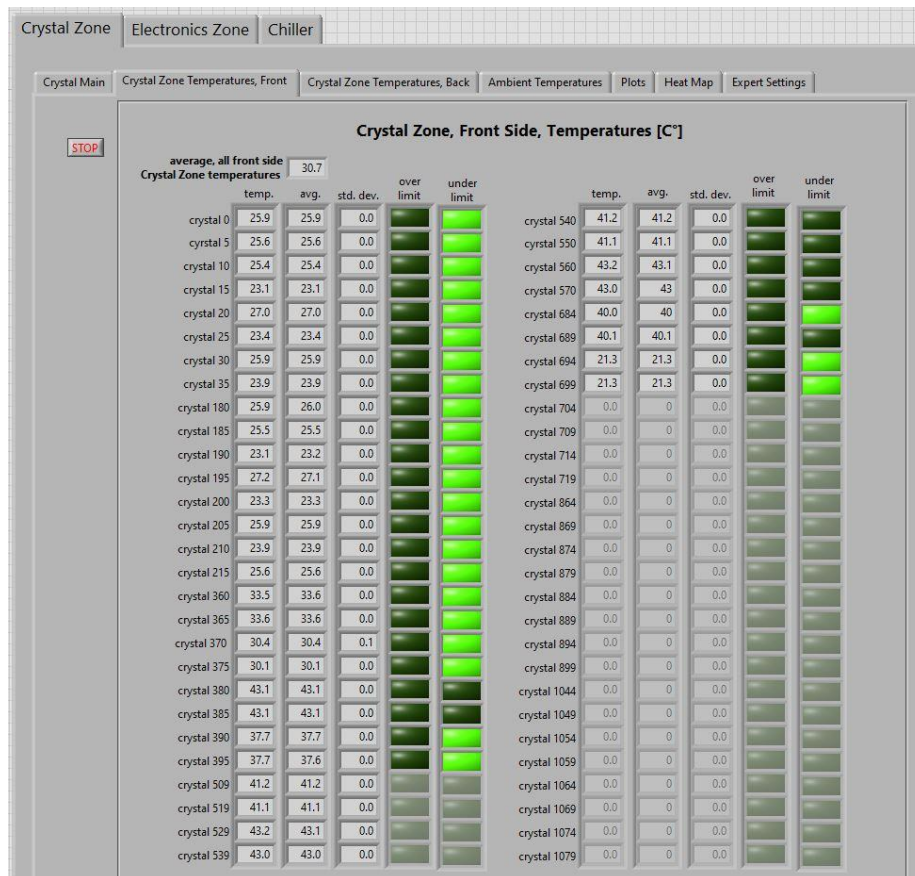
- Developing LabVIEW crystal zone thermocouple sensor scanning subroutine
- Developing LabVIEW front panel for the hardware interlock system



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LabVIEW front panel being developed by Mary Ann Antonioli for NPS hardware interlock system program

- Generating [plots of switching test data](#) for cables tested and uploading to NPS Technical Documentation website
- Testing HV supply cables with load; five of 40 tested
- Researching instrumentation, sensors, cabling, and interconnects for hardware interlock system
- Completed list of all major components needed for system fabrication
- Terminated and tested five HV supply cables; 15 of 40 complete

DSG R&D – GEM

Brian Eng, George Jacobs, Marc McMullen

- Held meeting with GEM medical application representative to discuss a DSG gas distribution and monitoring system for a prototype proton therapy detector system based on GEM technology

Safety – POAM 10

Marc McMullen

- Developing the specification document for the equipment registration application
 - ★ A provision was added to provide registration for all equipment, including Class 1 equipment, so that all installed equipment has basic registration