

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

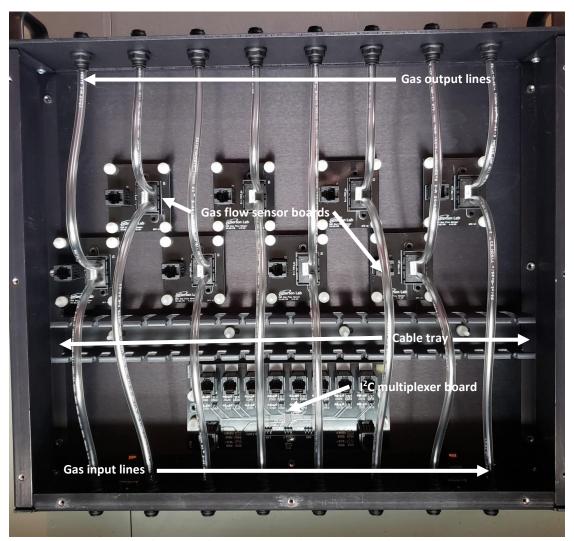
Weekly Report, 2021-03-17

Summary

Hall A – GEM

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

- Modifying gas flow readback software and WEDM monitoring webpage to display exhaust flow
- Populated 16 gas flow sensor PCBs and two I²C multiplexer boards
- Fabricating gas flow sensor chassis for SBS



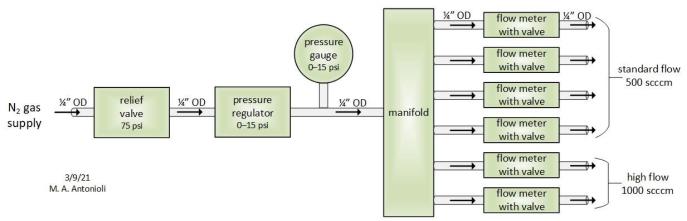
Top view of SBS gas flow sensor chassis designed and fabricated by DSG

• Generated, using Visio, GEM N₂ gas maintenance panel schematic



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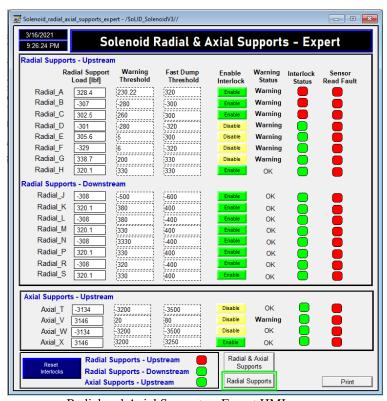


GEM N₂ gas supply maintenance panel schematic

Hall A - SoLID

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

- Modified "Load-Wrng" add-on instructions used to generate warnings to the operator when the radial support load readout is out of limits
- Wrote PLC code to generate warning when the axial support readouts are out of limits
- Wrote PLC code to interlock magnet based on the axial support loads
 - **★** Added code to reset axial support interlock
- Developing backup and restore Python code
- Tested, successfully, Radial and Axial Supports Expert HMI screen



Radial and Axial Supports - Expert HMI screen



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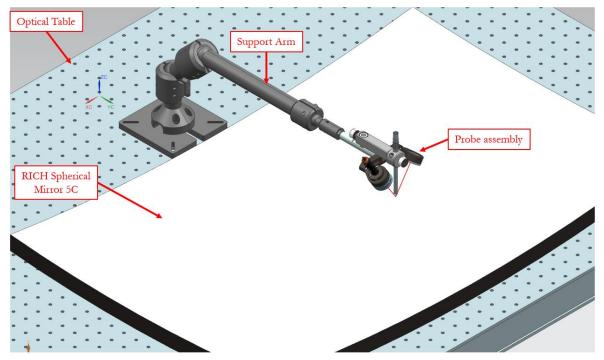
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- Generated AutoCAD drawing A000000-16-03-0501: *Heat Exchanger Temperature Sensors*
- Testing the constant current source PCBs for functionality

Hall B - RICH II

Mary Ann Antonioli, Peter Bonneau, Tyler Lemon

- Updated parts list for reflectivity test station upgrade to include telescoping support arm and other alignment system components
- Modeled, using NX-12, proposed test station components to verify that alignment system would work and support arm can be used to position probe over mirror



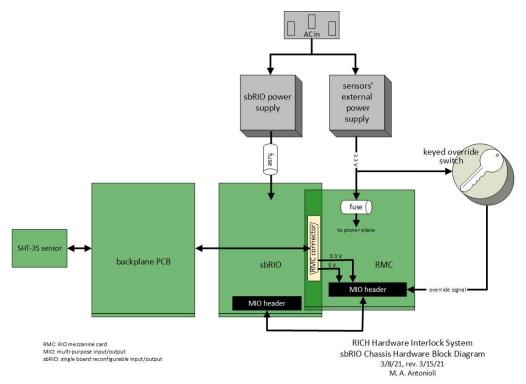
Proposed reflectivity test station with telescoping support arm

• Generated, using Visio, RICH Hardware Interlock System sbRIO Chassis Hardware block diagram



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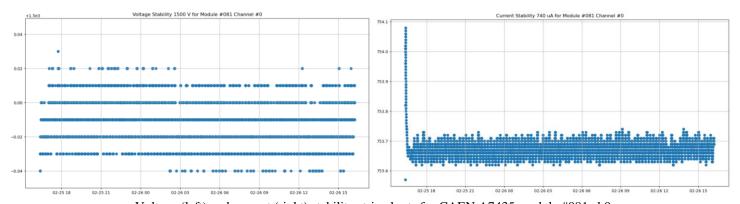


RICH Hardware Interlock System sbRIO Chassis hardware block diagram

Hall C – CAEN Testing

Mary Ann Antonioli, Aaron Brown, George Jacobs

- Investigating reason for large standard deviations for CAEN A1535 and A7435 HV module voltage and current stability test data
- Rewriting stability test analysis code to generate strip charts for each channel individually



Voltage (left) and current (right) stability strip charts for CAEN A7435 module #081 ch0

Hall C - NPS

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

- Tested operation of the Keysight switch/measurement unit via the web interface
 - **★** 34921A multiplexer switches and internal DMM are functional



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- **★** Password protection will be implemented to limit access
- Reviewed revised design for NPS HV supply cable test chassis' SAMTEC connector PCB; sent for manufacturing
- Reviewed manual for VME LED Driver module manual

EIC

Brian Eng

• Completed first draft of CY2021 goals with schedule and milestones

DSG - Cleanroom EEL 124

Marc McMullen

- Coordinated effort to reestablish protocols in the large clean room
 - * Resumption of cleaning schedule
 - * Contacted facilities management to get the filter change schedule up to date