

DSG Engineering Meeting Minutes

Date: January 09, 2023

Time: 02:00PM – 03:30PM

Attendees: Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran

1. Hall A – ECal

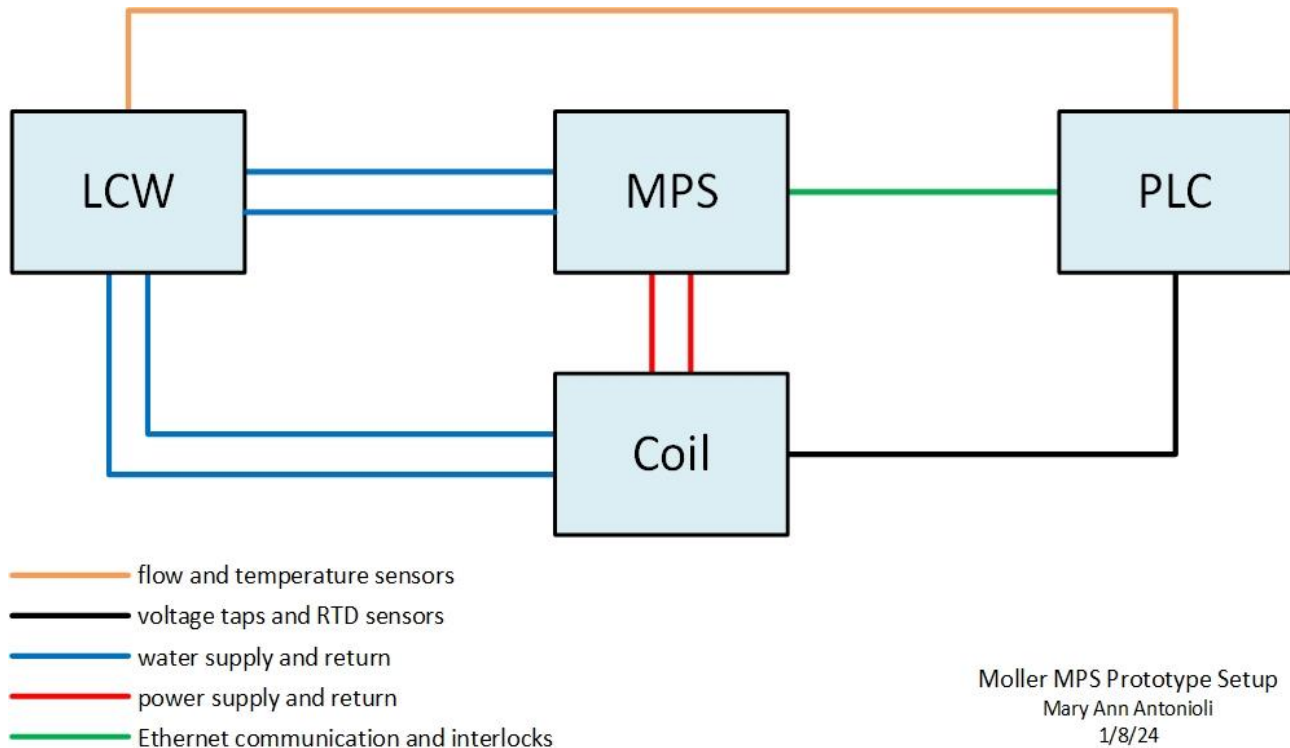
Marc McMullen

1. Development of new power supply disconnect chassis in progress

2. Hall A – Moeller

Brian Eng

1. Phoebus screens
 - Mary Ann has completed nine screens, covering VT, RTD, and some LCW for all four downstream magnets
 - Need one screen for Test Lab setup, with all information on a single screen
 - EPICS IOC is currently being developed with separate process variables
2. Instrumentation diagrams
 - Mary Ann created a general overview diagram for Test Lab setup; no details included since subject to change, but types of sensors are listed



Moller MPS Prototype Setup
Mary Ann Antonioli
1/8/24

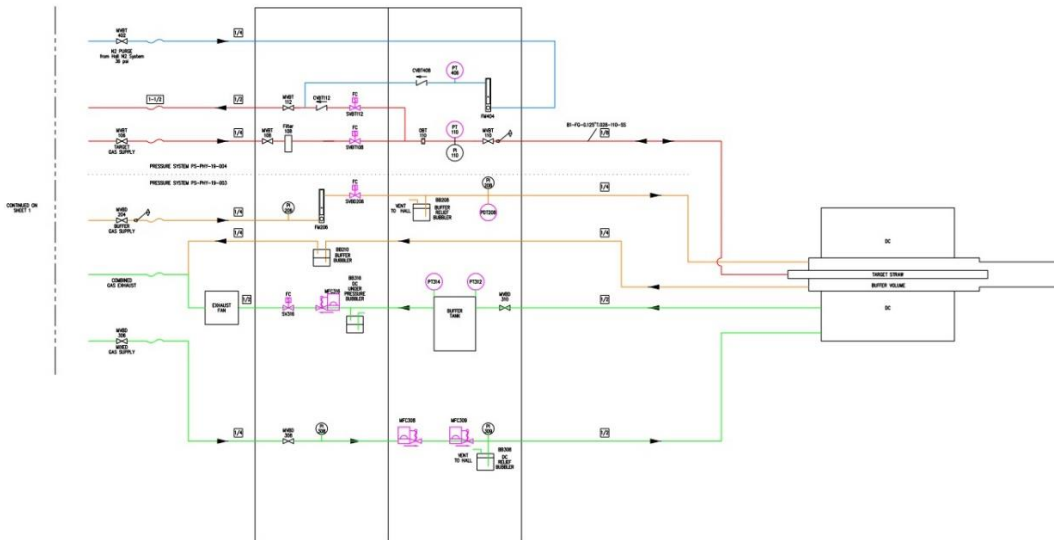
3. Site acceptance test of prototype MPS at JLab
 - Generally duplicating tests done during factory acceptance test, but with an actual coil instead of a test load (which didn't allow for full power testing)

4. Magnet mapping
 - Marc designed smaller PCB with MLX90393 magnetometer sensor (up to 500 G)
 - Due to layout change, will most likely use Adafruit development board as-is instead, despite being larger in area - <https://www.adafruit.com/product/4022>

3. Hall B – ALERT

Marc McMullen

1. Reviewed gas system drawings from Bob Miller
 - DSG will design controls for the green line only (supply and return for the drift chamber)
 - DSG will procure and test two mass flow controllers
 - System test likely to begin in March in EEL



4. Hall C – NPS

Aaron Brown

1. Temperature study using experimental data
 - Calculated the Pearson correlation coefficient for three plots
 - Front and back crystal temps: $r = 0.996$
 - Front crystal and ambient temps: $r = 0.843$
 - Back crystal and ambient temps: $r = 0.835$
2. Discussed thermal readback LabVIEW program test stand issues
 - Bound all network variables to corresponding front panel controls and indicators
 - Crystal zone temperature status and latch trip time back indicators are still greyed out on first run of program
3. Discussed high voltage cable testing and repair
 - Marc has completed ePAS; Aaron and Marc can now start in-hall testing

5. EIC – DIRC/RICH

Tyler Lemon

1. DIRC – interlock PCB has been received; Mindy will populate
2. RICH – new reflectivity test stand in development
 - Will test a sample mirror first
 - The new equipment can test down to ~200 nm