

# SoLID Magnet Controls System Meeting Minutes

**Date:** September 28, 2022

**Time:** 11:00 – 12:00

*Attendees:* Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Steven Lassiter, Mindy Leffel, Tyler Lemon, and Marc McMullen

## 1. HMI screens development

*Pablo Campero*

1. Reviewed modifications of *Solenoid Valve Setup* HMI screen
2. Changed units on *Solenoid Radial and Axial Expert* HMI screen
3. Checked *Solenoid PSU* HMI screen
  - Defined controls and monitoring features to be used during low current test of the magnet
  - Will add string indicator to monitor message text from and to the power supply
  - Will add reset control button, voltage output, and interlock status indicators

## 2. PLC programming

*Pablo Campero and Steven Lassiter*

1. Need to review modifications of PLC code used to control the aperture of the heat exchanger valves in PLC automatic control mode
2. Added code to determine if heat exchanger is enabled
3. Will evaluate PLC code used to compare the strain gauges and load cell load readout against the set limits
4. Modifying PLC routines to communicate with power supply
  - Mindy Leffel completed fabrication of communication cable, with RJ-11 connector on power supply end and ferrules on module end
  - Got ferrules to DB9 adapter and DB9 to USB adapter to run initial test that will test serial communication between power supply and computer/laptop

## 3. Electrical and Controls Drawings

*Mary Ann Antonioli and Pablo Campero*

1. Completed modifications of seven drawings
  - Drawings were posted on DSG website and placed at M:\dsg-halla\_controls\Electrical Drawings
2. Modifying drawings for diode and PT-102 temperature sensors wiring
  - Made hand sketch to show new sensor wiring

## 4. Instrumentation work

*Pablo Campero, Brian Eng, and Mindy Leffel*

1. Six thermocouple cables completed
2. Connector information required by Ellen Becker to fabricate resistor box
  - Pablo Campero provided connector specifications for voltage tap readout signals from the resistor box to the rack terminal blocks
  - Three connectors needed for voltage taps' readout at the turret flanges
    - Brian Eng will get a quote for six connectors