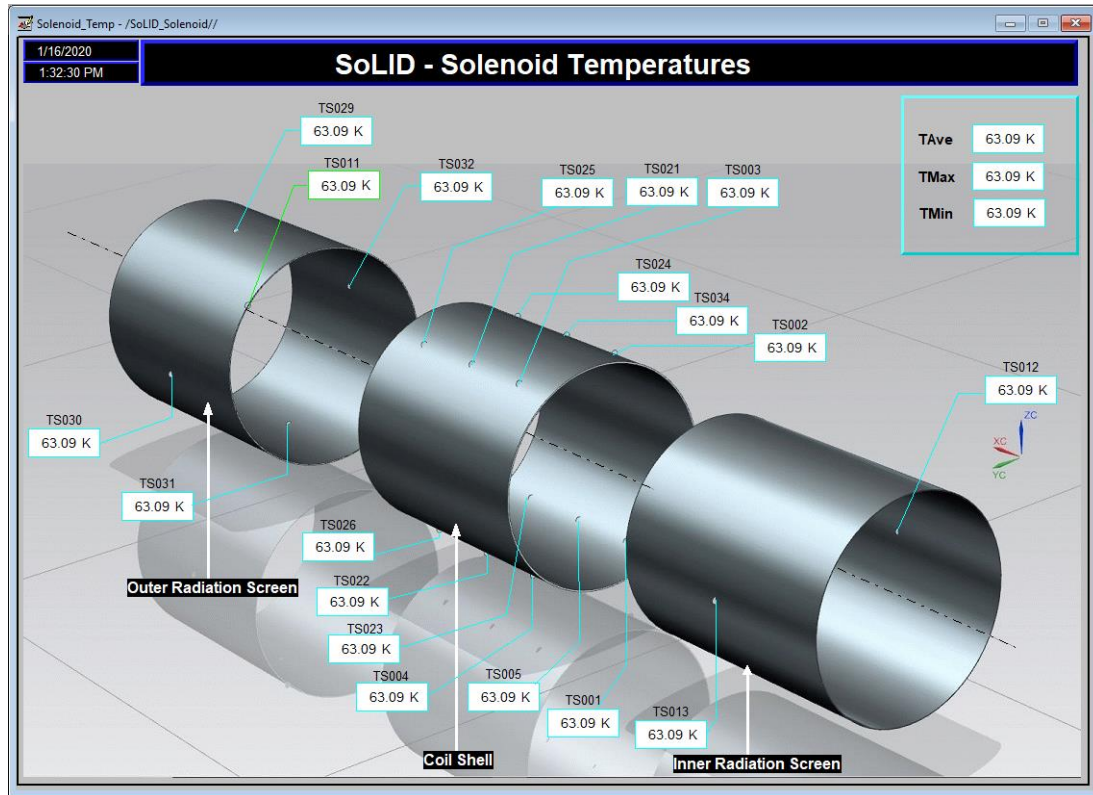


### Summary

#### Hall A – SoLID Magnet Controls

- Completed HMI screen to monitor SoLID Solenoid temperatures in the radiation screens and coil shell



SoLID Solenoid Temperature screens. Data displayed on screen is from a PLC test program.

#### Hall A - BigBite

- Terminated one of ten 34-contact coax-to-twisted pair ribbon cables.

#### Hall B – RTPC

- Added an absolute pressure sensor to measure ambient pressure at assembly area in EEL

#### Hall B – SVT

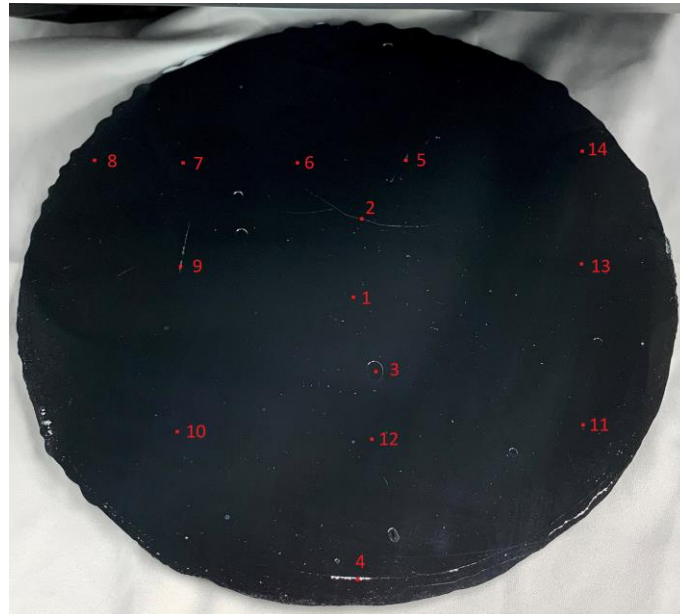
- Debugging instrumentation and equipment to test FSSR2 chips' maximum operating current.
  - \* Have not yet been able to communicate with the chips via the VSCM
  - \* Will start probing signals to see if the cabling is correct

### Hall B – RICH

- Tested reflectivity of prototype mirror fabricated by Núcleo Milenio de Formación Planetaria (NPF) collaborators to be ~85% for light with wavelength of 350 nm – 650 nm.

| Spot # | Reflectivity [%] |
|--------|------------------|
| 1      | 83.32 ± 0.83     |
| 2      | 84.61 ± 1.10     |
| 3      | 87.22 ± 1.47     |
| 4      | 80.05 ± 1.52     |
| 5      | 86.18 ± 1.15     |
| 6      | 84.87 ± 0.83     |
| 7      | 86.94 ± 1.00     |
| 8      | 86.15 ± 1.43     |
| 9      | 87.41 ± 1.74     |
| 10     | 86.05 ± 1.29     |
| 11     | 91.13 ± 3.40     |
| 12     | 83.89 ± 0.86     |
| 13     | 86.75 ± 1.18     |
| 14     | 87.82 ± 1.76     |

Average reflectivity for all spots tested on prototype mirror across all wavelengths tested.



Prototype mirror with spots tested marked.

### Hall C HMI-to-CSS Conversion

- Began re-creation of “Hall C HMS Status” screen in CSS-BOY.
- Developing EPICS server and client in LabVIEW to allow testing of CSS-BOY rules and scripts in converted screens.
  - ★ Investigating solution to PV names containing forbidden characters (brackets, colons, periods)



# Detector Support Group

## Weekly Report, 2020-01-15

### Hall C CAEN HV Test Station

- Completed assembly and continuity testing on 2 M $\Omega$  HV Load Chassis.
  - \* Forty-eight wires soldered from resistors to SHV connectors
  - \* Chassis is ready to test at its working voltage (~1500 V)
- Developing Python program to plot test data
- Developing and debugging JavaScript program to control EPICS test
  - \* The program ramps the channels up and down the specified number of times, but the wait command between ramps does not work properly
- Testing HV Multiplexer circuit on bread board to determine correct placement of diodes.
  - \* Circuit will ensure multiple relay circuit do not energize during channel selection.

### HDice

- Installed LabVIEW 2019 and set up license on new IBC server
- Updating IBC project from LabVIEW 2014 to LabVIEW 2019.

### Engineering Division Beam Position Monitor PCB Population

- Fabricating board; soldered 172 capacitors.