



Detector Support Group

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

Weekly Report, 2022-01-26

Summary

Hall A – ECal

George Jacobs, Mindy Leffel, Marc McMullen

- Assembling Supermodules – 11 of 57 completed
 - ★ Prepared foil sheets for light guides for five modules
 - ★ Assembled front flanges with springs and plates for three modules
 - ★ Measured 45 lead glass blocks and arranged in groups for assembly
 - ★ Completed front flange spring tensioning for five Supermodules

Hall A – GEM

Brian Eng, George Jacobs, Marc McMullen

- SBS installation in April/May timeframe
- Developing NX12 model of gas flow sensor chassis

Hall A – SoLID

Mary Ann Antonioli, Pablo Campero, Brian Eng, Mindy Leffel, and Marc McMullen

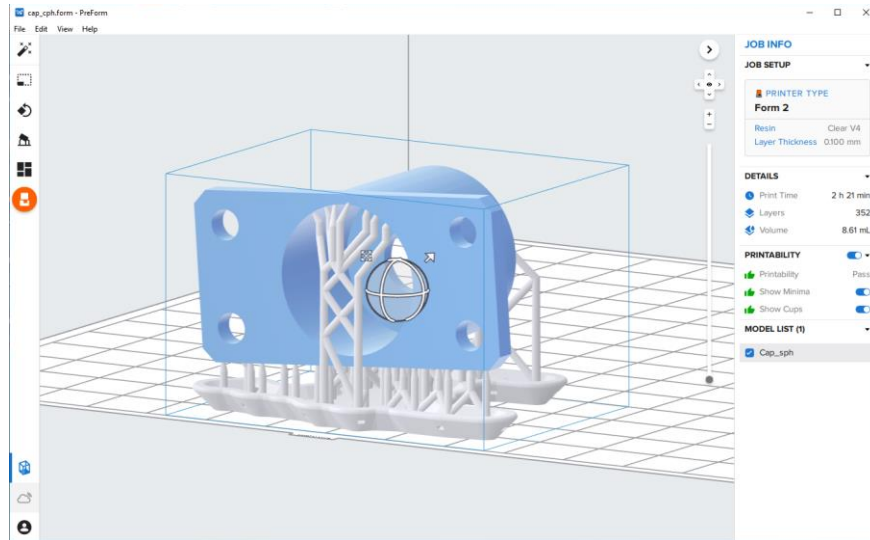
- Wiring instrumentation racks A and B
 - ★ Rack A front: 100% complete
 - ★ Rack A rear: 75% complete
 - ★ Rack B front: 99% complete
 - ★ Rack B rear: 100% complete
- Fabricating 64, 100' cables
 - ★ Cut 24, 100' cables and crimped ferrules on one end of five 12-conductor cables
 - ★ Requested cable connector information to complete termination of cables for the ends that connect with magnet and CCR connectors
- Updated *Cable Information* spreadsheet
 - ★ Added information to fabricate additional 24 cables

Hall B – RICH-II

Mary Ann Antonioli, Peter Bonneau, Pablo Campero, Brian Eng, George Jacobs, Tyler Lemon, and Marc McMullen

- Completed assembly OSP
- Installed side walls of detector shell on assembly frame
- Installed rear panel of detector shell
- Replaced rusted hardware on stiffening tool
 - ★ Hall B stored stiffening tool outside and the bolts, nuts, and washers rusted
 - ★ All rusted hardware replaced
 - ★ Stiffening tool inspected by Mark Loewus, JLab's material handling subject matter expert
- Installed stiffening tool on detector shell
- Completed review of lift operation for lift used during RICH-II assembly
- Rotated RICH-II to vertical position

- 3-D printed test mirror support component



Screenshot of 3-D printed mirror support part; blue is part, grey is auto-generated supports

- Modified, for the hardware interlock chassis, 20 Molex-to-RJ45 cables; repositioned three wires

Hall C – NPS

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

- Developing Python script to read out temperature measurements from Keysight mainframe using *python-vx11* package
 - ★ Program currently prints to screen temperature values for all thermocouple and RTD signals
- Wrote Python script to parse results file from Ansys thermal analysis of crystal array
- Added electronics zone chiller tab code and user interface to the hardware monitoring LabVIEW program
- Installed 15 thermocouples in Keysight terminal block #1 (32 of 112 installed)
- Generated spreadsheet detailing subVIs needed to create LabVIEW device driver library to communicate with, and control, Kodiak chillers
- Completed ESR film pre-shaping

EIC

Pablo Campero, Brian Eng

- Planning stages for JLab/DSG work on ALICE Inner Tracking System v3 (ITS3) Multi-Layer Reticle 1 (MLR1) testing (ASICS for pixel chip readout)
- Planning upcoming work for JLab mechanical designers, most likely focusing on MPGD