

Detector Support Group

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

Weekly Report, 2023-11-15

Hall A - SoLID LAPPD

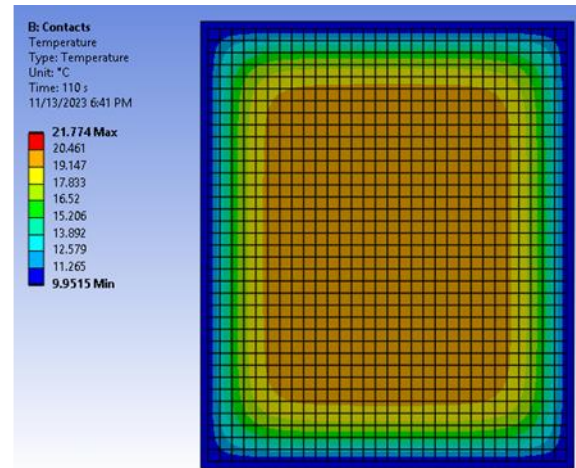
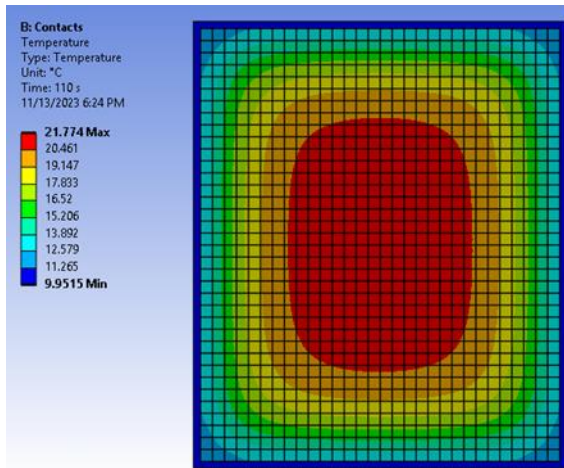
Pablo Campero

- Reviewed technical specifications of LC40 Gantry Stage system from Zaber Inc.; approved and PR submitted

Hall C – NPS

Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, and Mindy Leffel

- Ran thermal simulation of crystal array model using Ansys Mechanical Transient Thermal
 - ★ Simulation took ~66 hrs to complete; results are illogical—the maximum temperature is below the ambient temperature
 - ★ Increased time steps and length of simulation from 110 s to 1000 s



Screenshot of results of 110-s simulation using Ansys Mechanical Transient Thermal (left: front, right: back)

- ★ Rerunning simulation
- Continued revision of LabVIEW control and monitoring software
 - ★ Worked on subVIs for sensor disabling
- Fabricated a ferrule-to-ferrule relay cable

Hall D – FCAL2

Mindy Leffel

- Populated 20 PMT bases; 785/1750 completed
- Cut 160 wires, stripped 50

EIC – Beampipe Thermal Test

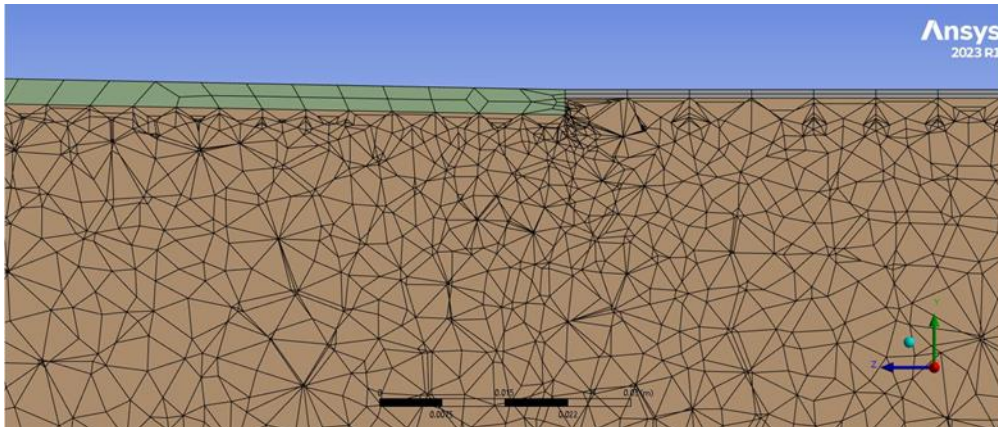
Pablo Campero

- Reworked mesh due to issues found during first attempt of simulation

Detector Support Group

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

Weekly Report, 2023-11-15



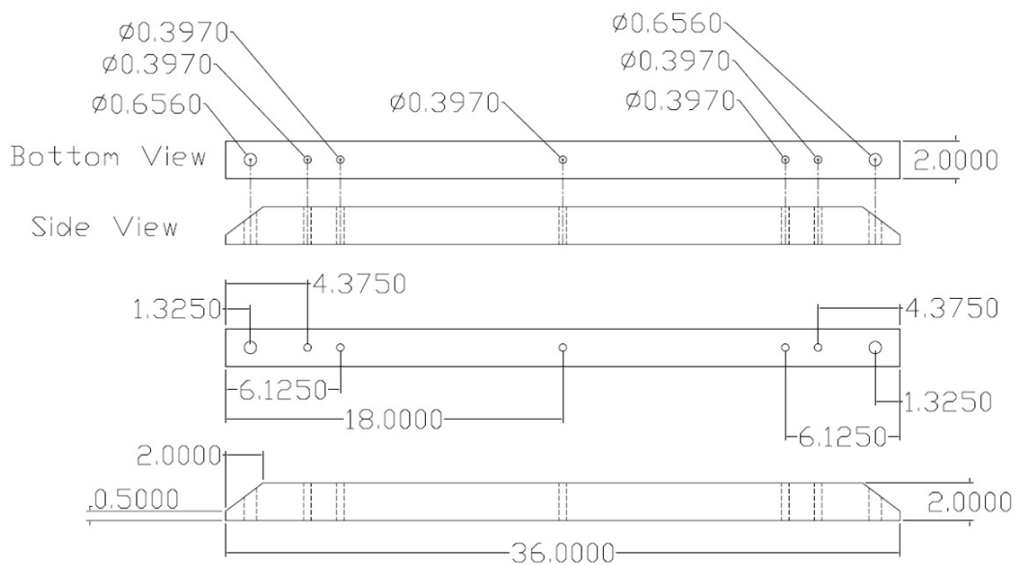
Close-up view, cross-section, of the meshed model for the beryllium, aluminum, and inner air fluid sections

- Set up material thermal properties and boundary thermal conditions
- Ran simulation; temperature values are not correct
 - ★ Investigation in progress

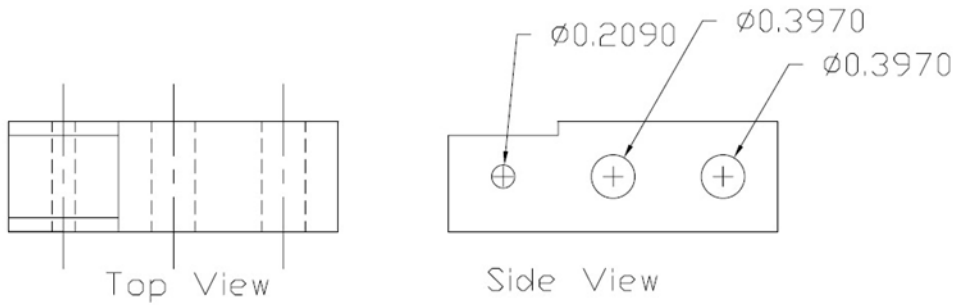
EIC - DIRC

Peter Bonneau, Brian Eng, George Jacobs, Tyler Lemon, and Marc McMullen

- Shipping crates
 - ★ Drew bottom air spring bracket for shipping crates (below)

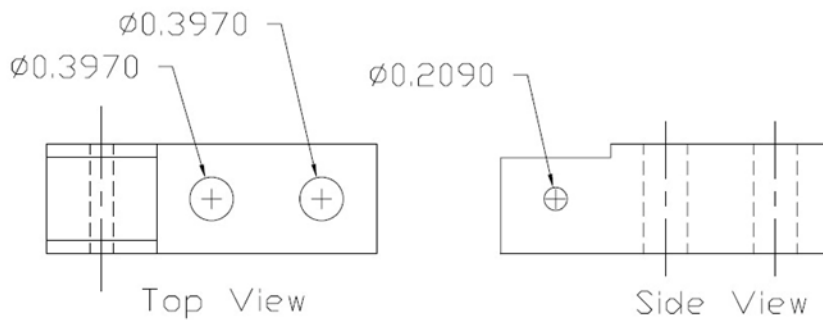


- ★ Drew crate speed limiter (shock absorber) brackets for shipping crates (below)



-- Crate Upper Limiter Bracket --

Shipping Crate Limiter Brackets



-- Base Limiter Bracket --

- ★ Created hardware list for air spring brackets and speed limiter brackets; ordered components
- Developed and tested Phoebus user interface layout files for Phoebus alarm test
 - ★ Layout files automatically set up user displays and start Phoebus applications for the test
- Reviewed DAQ PCB
- Annotated code that runs on Arduino for DAQ system

DSG

Peter, Bonneau, Mindy Leffel

- Website
 - ★ Continued Notes spreadsheet to be used for a future website upgrade; completed years 2017 and 2018
 - ★ Revised mailing lists
- Met with ESH to review hazards of and get approval for using polyvinyl alcohol (PVA) with 3D printer
 - ★ Discussed procedure for dissolving PVA supports in water and proper disposal of water
 - ★ Waiting for ESH to process material safety information for PVA filament and advise on a setup for using in the 3D printer