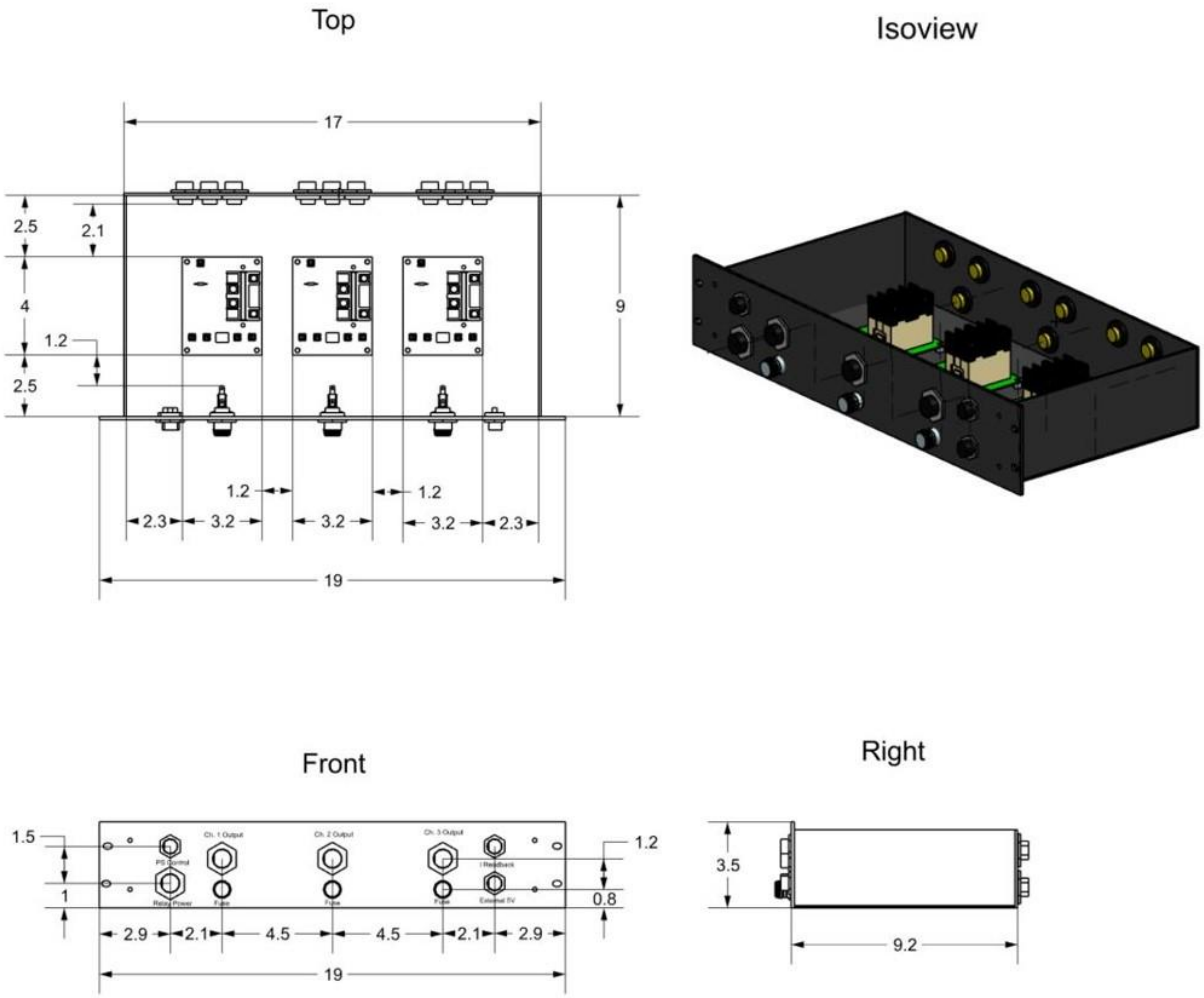
Hall A – ECAL

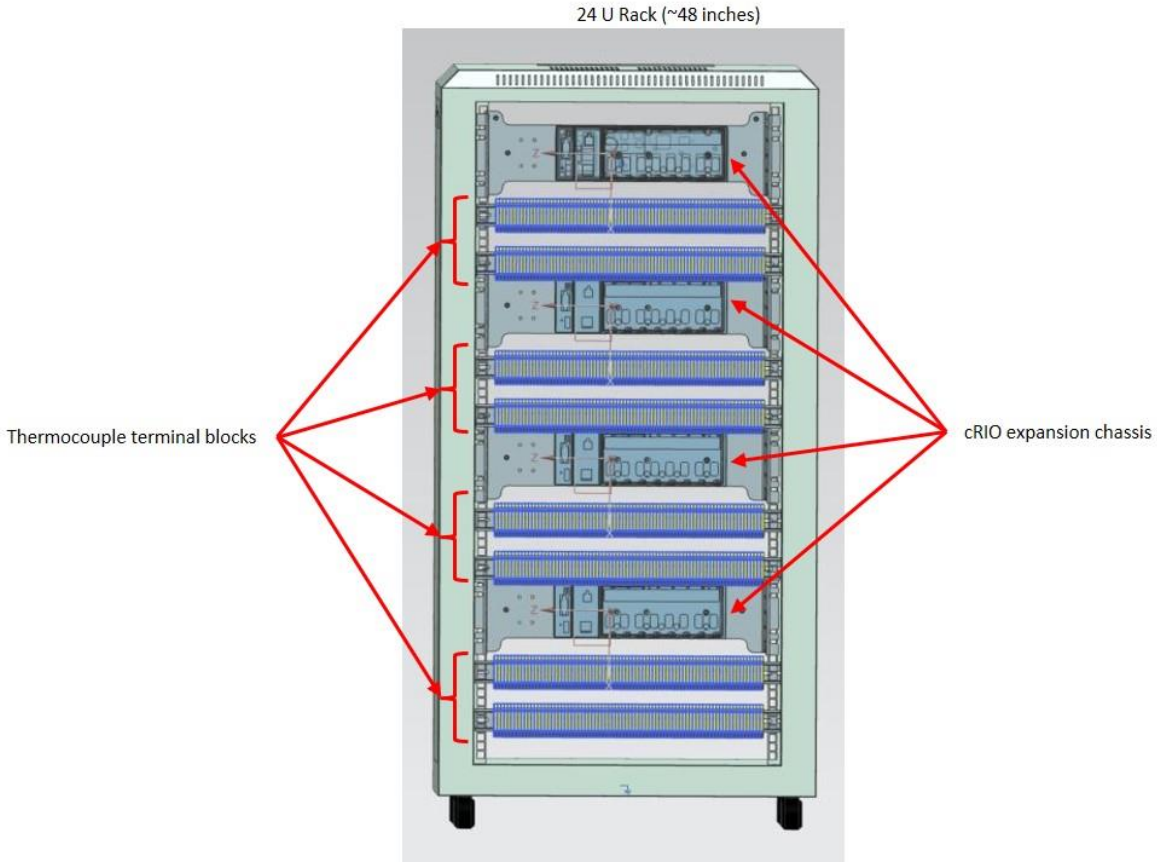
Marc McMullen

- Completed design changes of power supply interface chassis



NX drawing of the power supply interface chassis

- Started model of the controls rack with four cRIO expansion chassis and thermocouple terminal blocks



NX model of ECAL heater controls rack for the full system

Hall A – LAPPD

Pablo Campero and Marc McMullen

- Made final adjustments to gantry support structure and rechecked the fit
  - ✶ Measured LED box to LAPPD window frame distance at the corners, all within 1/16th of an inch

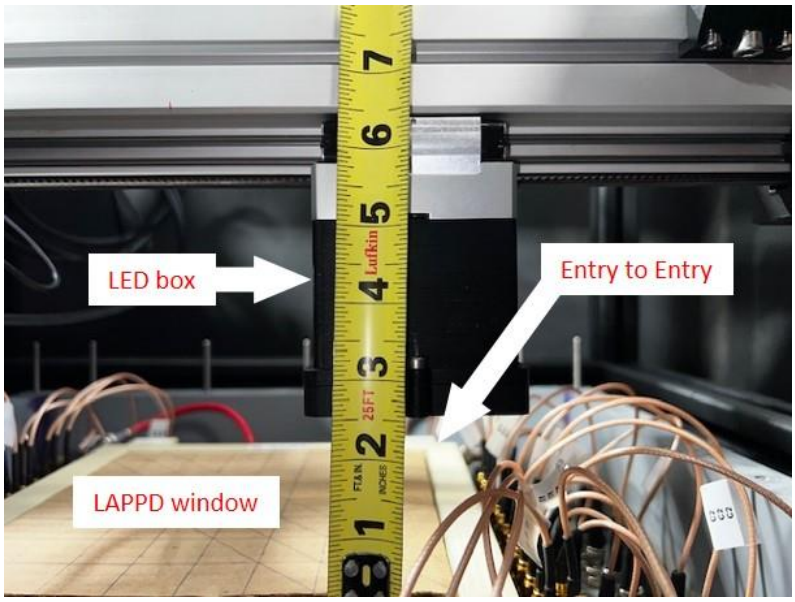
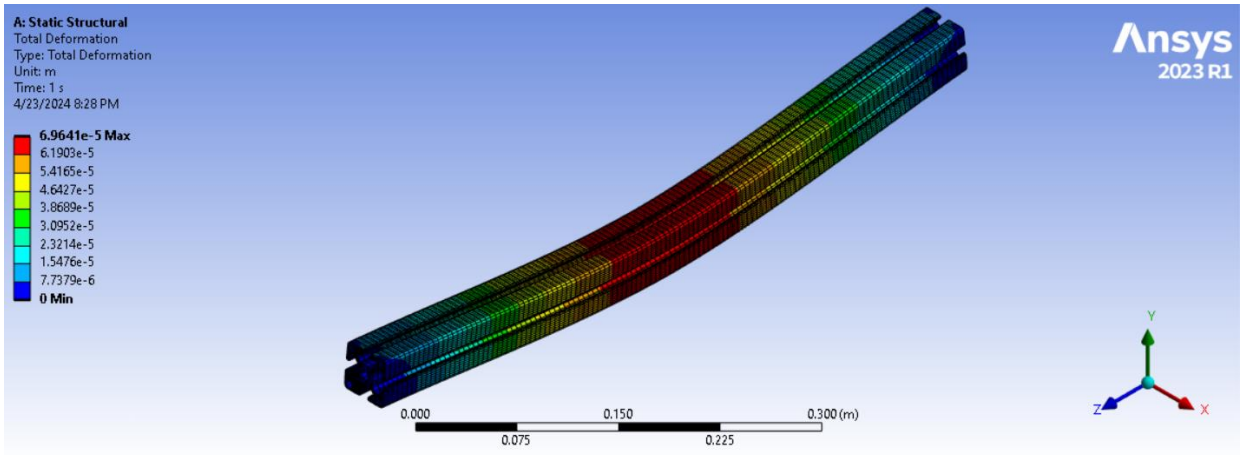


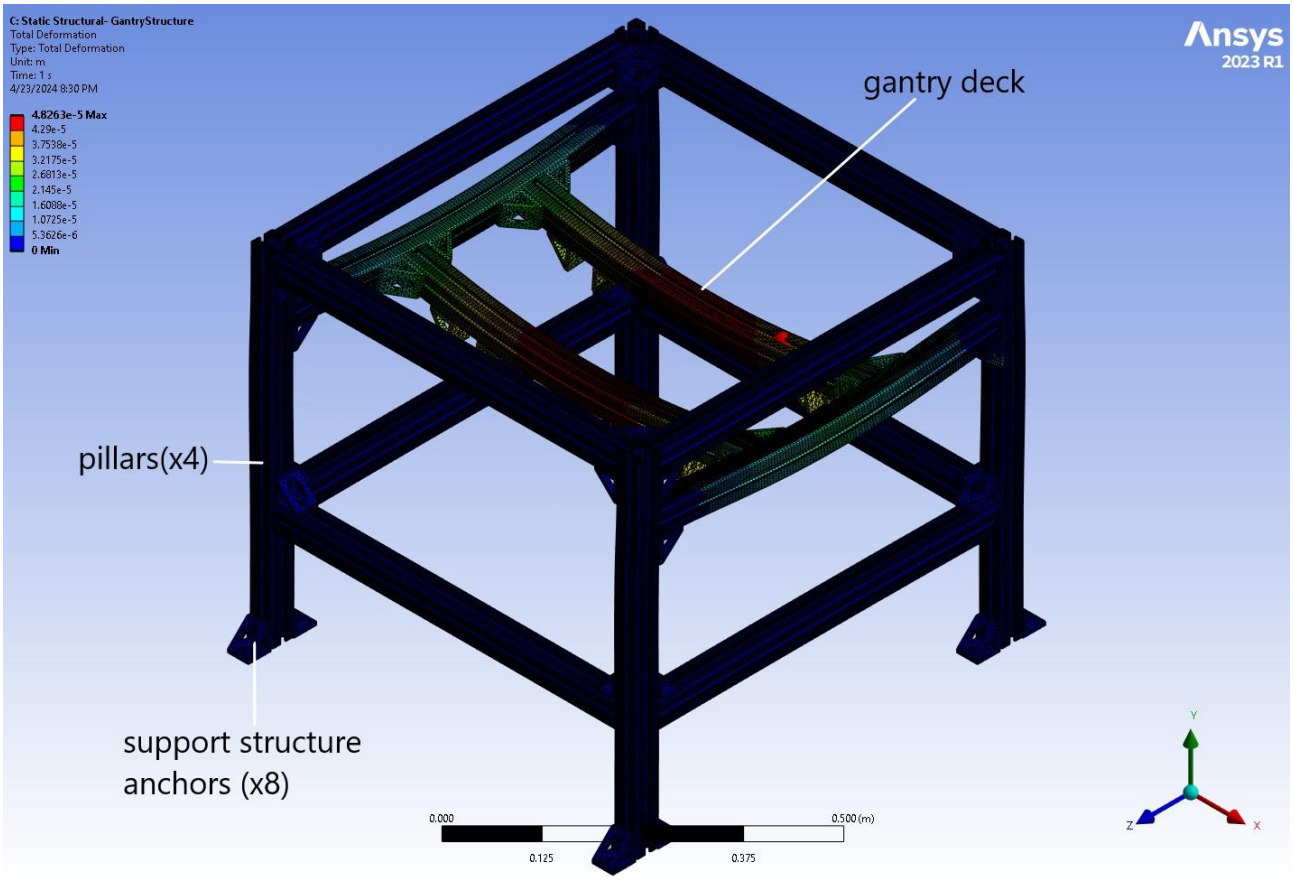
Photo of the measured distance between the LED box face and the LAPPD window

- Used Ansys Static Structural to calculate the maximum deformation of the gantry support T-slot to be 69.6 µm



Simulated deformation of the T-slot

- Used Ansys Static Structural to calculate the maximum deformation of the entire gantry support structure to be 48.2 µm



Static structural simulation results for the gantry structure. Note the red areas show the maximum deformation location

Hall A – Møller

Brian Eng

- Merged separate read and write MPS command arrays into a single array
- Verified MPS can handle setting current via float in exponential notation, e.g. "+3.900000e3"
    - ✶ Having issues with VAL_STRG command (lets you choose format); REAL_TO_STRING command is okay (always seems to be exponential)

Hall C – NPS

Aaron Brown, Mary Ann Antonioli, and Brian Eng

- Recovered chiller's temperature readout, after chiller leak: https://logbooks.jlab.org/entry/4287329
- Working on version 3 of control and monitoring LabVIEW program
    - ✶ Working on state machine to determine a trip or not
    - ✶ Continued revising array builds of EPICS variables to LabVIEW variable and breakouts of LabVIEW variables to EPICS variables, reflecting change to fewer arrays in overall code

Hall D – FCAL2

George Jacobs

- Tested 52 PMT bases; 880 good bases tested
    - ✶ One had shorted low voltage caps (output amplitude lower than expected) and two had no signal

EIC – DIRC

Tyler Lemon

- Created program to parse shipping crate accelerometer raw data files and save the data in a more easily usable format, making it quicker to plot data or to modify plot formats
    - ✶ New version puts all data for one area of the crate on the same plot to better show how suspension system dampens forces on barbox
- Started setting up laser interlock system in EEL 108 laser lab
    - ✶ Determining cabling strategy for optical table sidewall sensors
        - ▪ Sensor switches will be in series so if one sensor detects a wall down, the interlock is tripped
    - ✶ Determining pin-out for cable that connects main interior control unit with exterior control unit

DSG R&D

Peter Bonneau and Mindy Leffel

- Worked on Phoebus test station
    - ✶ Researching and specifying hardware
    - ✶ Ordered cRIO modules
    - ✶ Designing system software architecture
    - ✶ Documenting the design
- Completed fabrication of 210 ferrule-to-ferrule test cables
- Fabricated and labeled three 25-pin, D-sub connector-to-ferrule cables

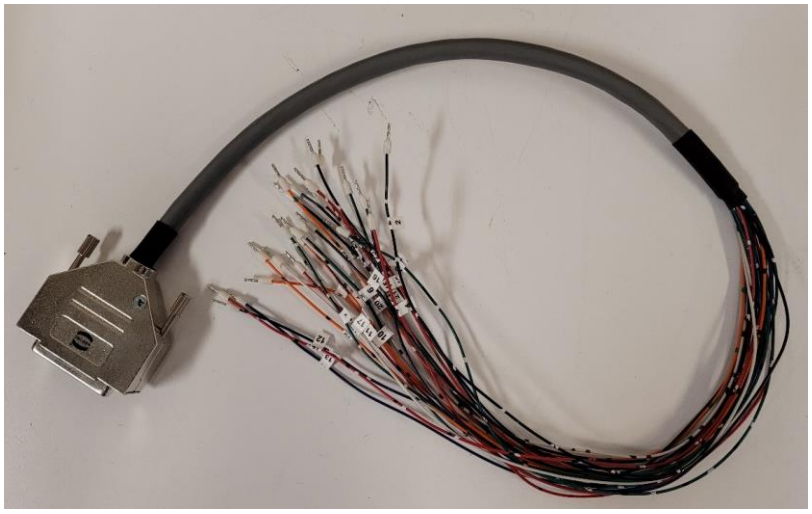


Photo of 25-pin, D-sub connector-to-ferrule cable

- Started Ohming out BNC test cable, to create wiring diagram for fabrication of two more cables

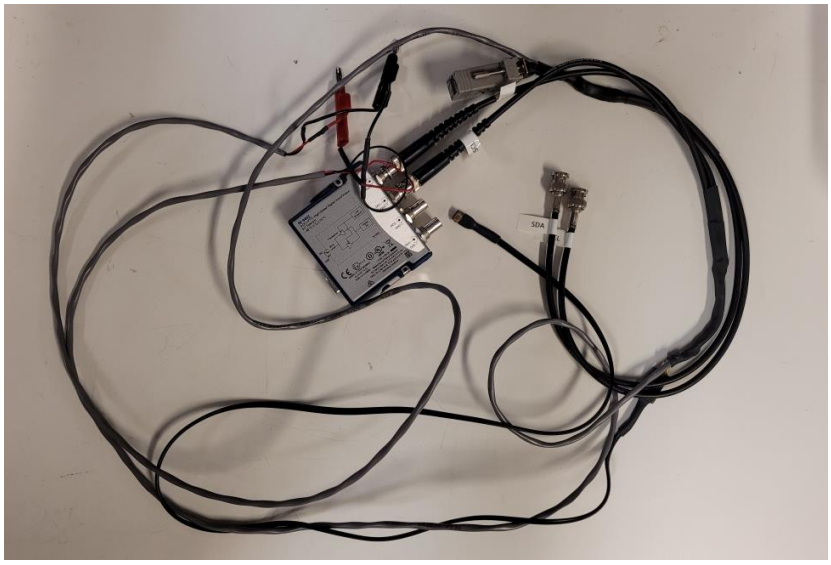


Photo of BNC test cable