DSG Simulation, Control, and Monitoring Meeting Minutes

Date: February 15, 2024
Time: 2:00 PM – 3:00 PM

Attendees: Mary Ann Antoniolli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng,
Tyler Lemon, and Marc McMullen

1. **Hall C NPS Interlocks program**
   Aaron Brown and Mary Ann Antonioli
   1. Discussed debugging of the LabVIEW program
      - Array of temperature averages is not getting values from previous frame of sequence
      - Recommended probing before entering subVI to monitor values
      - Generated a test VI and array values updated correctly
   2. Discussed if a new version of the NPS Interlock program would be required and what would change

2. **Hall A SoLID LAPPD- NX12 CAD**
   Pablo Campero and Marc McMullen
   1. Gantry support design status
      - Assembled gantry, LED box, support components, and LAPPD enclosures to check clearances for any interferences
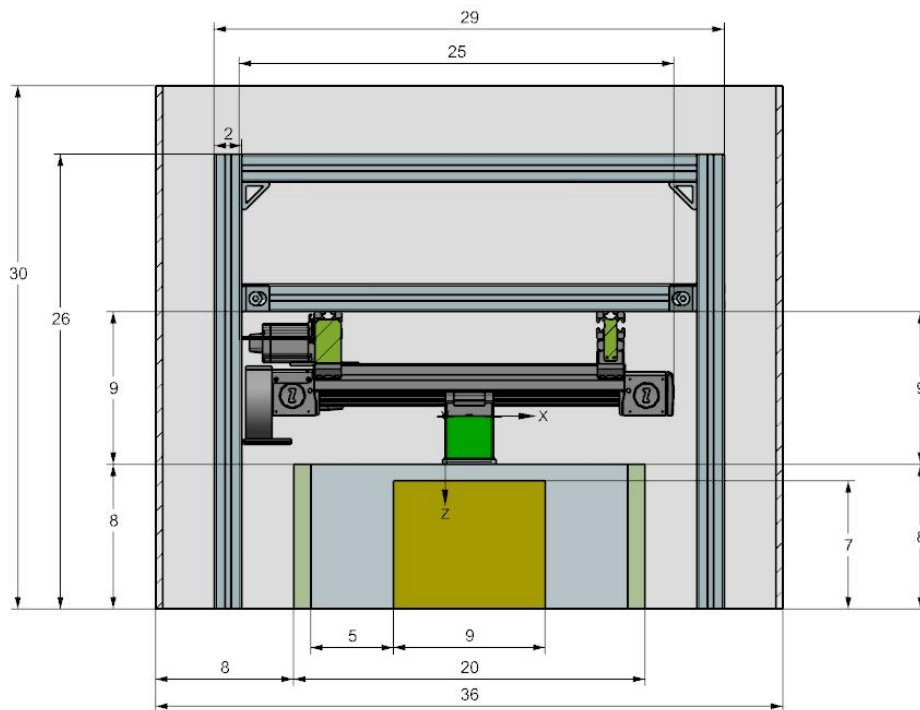   - Determined the size of each T-profile as 26 inches

Fig.1. Front view of the LAPPD black box with the gantry and gantry support frame. The dimensions are in inches

2. Working on the LED box design
   - LED enclosure will hold the LED centered and the required circuitry to power the LED
   - Converted Zaber step files for gantry's carrier to .prt so can open in NX12
   - Base of the box based on the gantry's carrier dimensions and hole locations; height based on the circuitry and components used to power the LED
   - Generated first version of the LED box using NX12

3. **Ansys Gateway with Amazon Web Services (AWS)**
   Pablo Campero
   1. Access to Ansys Gateway supported with AWS would only solve computing hardware limitations; HPS licenses still needed to fully test large project simulations
      - There will be access to HPC licenses for JLAB users during the testing period, which will be extended by ANSYS
      - The test of the Ansys Gatway with the temporary HPC licenses will determine the number of HPC licenses that could be purchased
   2. Follow-up meeting with just JLAB participants is scheduled for February 19 to develop a plan to start testing Ansys Gateway

4. **Hall A ECAL temperature and heater control LabVIEW program**
   Marc McMullen and Brian Eng
   1. Discussed LabVIEW program modifications made to set the cRIO expansion chassis modules
   2. Monitor thermocouple temperature readback from supermodules
   3. Reviewed table with information on the cRIO chassis, modules, and channels assignment