

DSG SICOM Meeting Minutes

Date: March 7, 2024

Time: 2:00 PM – 3:00 PM

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

1. Hall C NPS interlock program

Aaron Brown and Mary Ann Antonioli

1. Debugging the NPS interlock LabVIEW program
 - After applying changes to the main NPS interlock LabVIEW program, noted that it gets disconnected from the target (cRIO controller) after running about a minute
 - Ran previous version of the program without changes and had no disconnections
 - Suggested the addition of indicators to sequences of the program to see how far it goes prior to disconnection
2. Working on version 3 of the NPS interlock program
 - Completed subVI to monitor computer and cRIO health

2. Hall A LAPPD- NX 12 CAD software

Pablo Campero and Marc McMullen

1. Gantry support design
 - NX 12 3D model will be modified to match the ordered T-slot length of 27.5 inches; planned to use 24 inches, but unavailable
 - Longer T-slots still within clearance
 - Assembly is in progress and based on NX 12 3D model
2. Completed second version of the LED box design
 - Made separate part for the LED support where the LED head will be placed
 - Modified LED base and LED top to assemble using bolts
 - Exported prt nx12 files as STL files to allow 3D printing of each part
 - Received error for some parts related to negative coordinates
 - Researched indicated that error is not critical to export file as STL
 - Enabled Triangle Display option
 - Changed tolerance value default 0.08 to 0.0025 to get a smooth surface for each part
 - Installed Cura software on dsgcontrols2 computer, which is connected to Ultimaker S7 3D printer
 - Discussed putting the bolts on the side rather than the top for an easier disassembly operation, since final setup will be with the LED box upside down

3. DSG 3D Printer Software

Tyler Lemon

1. Discussed procedure to get stl files
2. Discussed details and setup procedure using Cura software
3. Showed advanced options to print
4. Allocation of the part to be printed is critical to avoid unnecessary use of automatic supports created by Cura
5. Printing time is based on the tackiness of each layer, supports used, and cells types
6. There is a camera that allows real time remote monitoring, controlled from Cura

4. Ansys Learning Hub

Pablo Campero

1. Ansys Learning Hub has been reactivated for JLab users until April, 2024
 - Registration form approved and received full access resources
 - Reviewing Fluids modules

5. Hall A ECAL temperature and heater controls LabVIEW program

Marc McMullen and Brian Eng

1. Added EPICS shared variables for the cooling volume channels to the LabVIEW code