DSG-NPS R&D Meeting Minutes

Date: December 01, 2020
Time: 11:00AM – 12:00 PM

Attendees: Mary Ann Antonioli, Aaron Brown, Pablo Campero, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran

1. CSS screen development status
    1.1. Mary Ann Antonioli completed 489 of 1080 PMT Settings blocks on the main NPS screen
        1.1.1. Aaron Brown will develop a script to assign values to macros and PVs to widgets programmatically
    1.2. Aaron Brown attached PMT Status pop-up screens to 70 of 1080 LEDs on the *NPS CAEN Overview* screen
        1.2.1. Mary Ann Antonioli will be developing the rest of the screens (1010)

2. CAEN testing and data analysis
    2.1. Marc McMullen picked up RG59 cables from George Jacobs; there are enough to make ~44 SHV cables for an additional SHV load box
    2.2. George Jacobs completed ramp testing of 33 of 34 boards using the new Python program
    2.3. One module is dead; channel #13 of module #349 failed to ramp beyond ~75 V
    2.4. Mary Ann Antonioli plotted trip test data for 22 of 34 modules
        2.4.1. Noticed few channels of module #184 never reach 0 µA/0 V after tripping
    2.5. Developing Python analysis package for ramp test data analysis
        2.5.1. Overlayed plots of all 36 channels of a module for all 33 modules have been generated and will be uploaded to the NPS technical documentation section of the DSG website
        2.5.2. Mary Ann Antonioli will generate plots for the individual channels of all 33 modules

3. Hardware Interlock System development
    3.1. Aaron Brown sent list of requested items for Hardware Interlock System development to Brad Sawatzky; awaiting reply
    3.2. Aaron Brown will continue developing a three-dimensional model of detector using NX12 to aid development of Hardware Interlock System

4. Cable fabrication
    4.1. Mindy Leffel fabricated 1010 of 1100 HV divider cables
    4.2. The GWP multi-conductor cables will be delivered to the shower curtain room along with the insertion/extraction and crimper tools and the SAMTEC connectors
        4.2.1. Still waiting for the Radiall 52-pin connectors