

DSG-EIC DIRC Meeting

Date: May 15, 2023

Time: 2:00 PM – 2:30 PM

Attendees: Brian Eng, Greg Kalicy, Tyler Lemon, Marc McMullen, and Beni Zihlmann

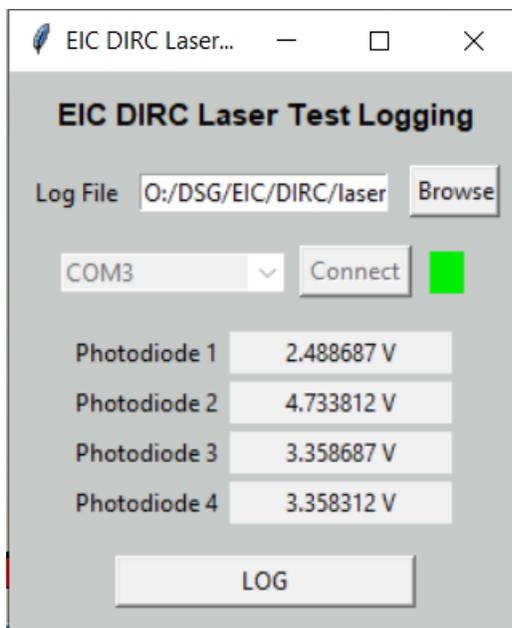
1. Facilities Management work request complete for through-holes in EEL 108 sub-room walls

Tyler Lemon, Walt Akers

1. Created three through-holes for AC unit exhaust, laser fan exhaust, and cable feedthrough
2. Powered and tested AC unit
3. Purchased duct adapters and caps for AC unit exhaust and laser fan exhaust using PCard; expected delivery date of May 16

2. Developed remote user interface for reading ADCs in laser test station

1. Easier to log data on a PC instead of manually recording values
2. Python program developed utilizing the Tkinter package that creates a user interface for connecting to the DAQ device, setting up a log file, and logging data to that file
 - Allows user to set path and file where a CSV format file will be saved
 - Has built-in checks for validity of input path and whether user wants to create a log file
 - Can select and connect to the PC's serial port that corresponds to the microcontroller board reading the ADCs
 - Logs all data with a timestamp with one click
3. Addition of stage position readback to screen and logging requested



Screenshot of user interface created for simplified logging of photodiode readouts.

The ADC corresponding to the photodiode 1 readout is reading the voltage output of a transimpedance amplifier circuit (current-to-voltage converter for photodiodes), the ADC for photodiode 2 is reading the Arduino microcontroller board's 5-V power output, and the ADCs for photodiodes 3 and 4 are reading the Arduino microcontroller board's 3.3-V power output.