

DSG-EIC DIRC Meeting

Date: December 12, 2022

Time: 11:00 AM – 12:00 PM

Attendees: Peter Bonneau, Aaron Brown, Imani Burton, George Jacobs, Greg Kalicy, Tyler Lemon, Marc McMullen, and Jennifer Williams

1. Latest draft of safety documentation distributed; please review and respond with questions or comments

2. Laser safety glasses calculation verified

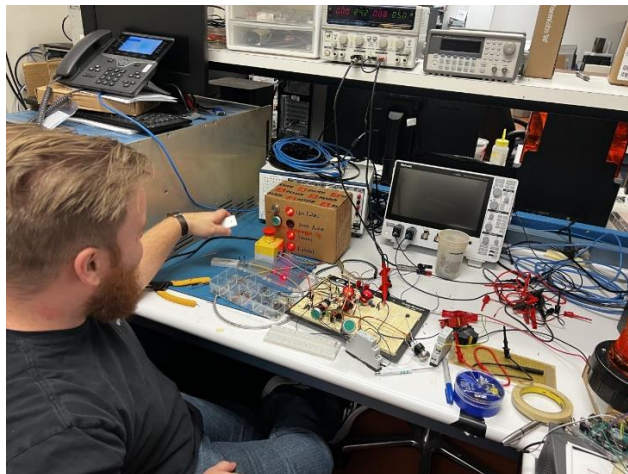
Tyler Lemon

1. Laser Task Hazard Analysis states that a minimum optical density (OD) of 2.0 is needed for laser safety glasses
2. Calculation by hand verifies this result

3. Laser interlock system

Tyler Lemon

1. Prototype circuit developed on breadboard
2. Features of prototype interlock system include the following:
 - Capability to monitor up to 14 normally-closed inputs
 - Relay output with delay timer for enabling laser
 - Relay output of 24 VDC power for door magnetic lock and signal beacon
 - Sweep button
 - Button will be inside laser area, requiring user to enter area before resetting interlocks, therefore requiring a sweep of the laser area to ensure its appropriate occupancy
 - Pushing sweep button starts a user-settable timer
 - To enable laser, user must reset interlocks before timer expires; if timer expires, sweep button must be pressed again
 - Interior and exterior control units with keyed enable switches and LED status indication



Tyler Lemon testing prototype laser interlock system in EEL 231.