

DSG-EIC DIRC Meeting

Date: August 7, 2023

Time: 4:00 PM – 4:30 PM

Attendees: Peter Bonneau, Aaron Brown, Brian Eng, George Jacobs, Greg Kalicy, Tyler Lemon, and Marc McMullen

1. Quartz bar shipping is moving forward

Greg Kalicy

1. Anticipated time of quartz bar arrival is November 1
2. Crates in EEL 108 that will be used to ship quartz bars must be checked to see if they are prepared for shipment
 - Will need material handling assistance since crates are stacked in sets of two

2. Laser interlock circuit PCB status

Mindy Leffel, Tyler Lemon, and Marc McMullen

1. Mindy Leffel populated PCB
2. Resolved problems with relay output by adding 330- Ω resistor to relay input, limiting current to devices
 - When system enabled output, relay circuit was drawing too much current (>50 mA)
 - Over-current condition caused relay and NPN transistor to fail into an always enabled state
3. Immediate course of action
 - Prepare one PCB with resistor in series, as in photo below, to be used temporarily
 - System functions properly with fix, allowing laser test area to be used
 - Revise PCB design, order new PCBs, and populate
 - Replace temporary PCB

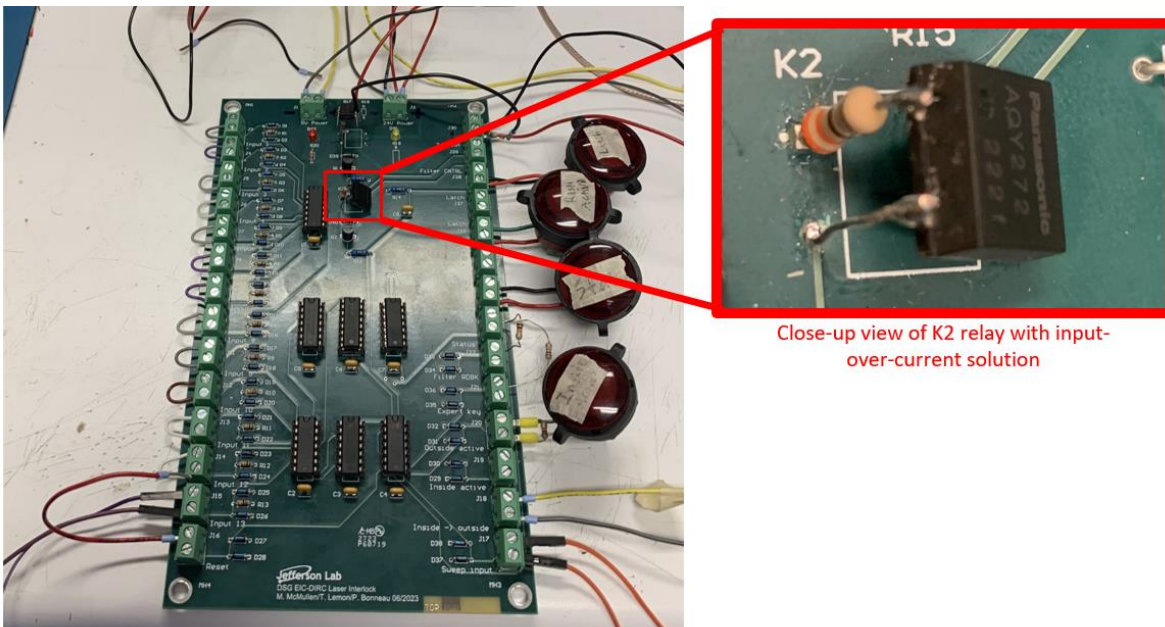
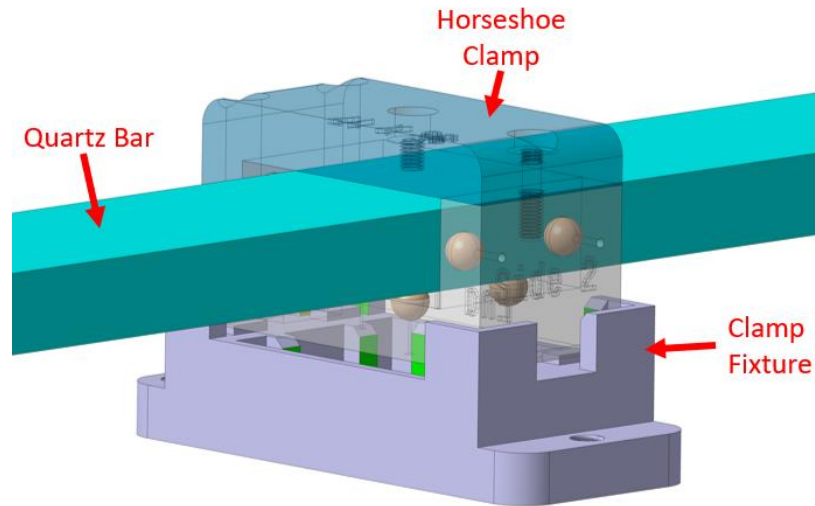


Photo of populated laser interlock system PCB showing temporary fix to relay-over-current problem.

3. 3D printing designs of clamps used to hold quartz bars in test station

Greg Kalicy and Tyler Lemon

1. Received raw materials for 3D printer
2. One horseshoe clamp and one clamp fixture will be printed; Greg will inspect to ensure quality
3. Quantities needed
 - Eight horseshoe clamps
 - Four clamp fixtures



CAD model screenshot of clamp and fixture needed to hold quartz bars during laser tests.

4. DSG – EIC DIRC meeting will be scheduled for August 14, 2023 at 2:00PM

1. Meeting will be in-person in EEL 108
2. Purpose of meeting is to review remaining tasks for preparing laser test area