11/7/16

We added the opamp to produce linearity in the control current. We used lm741 opamp to accomplish this. It required +-12 v power supplies. We added a 10ohm 50w resistor to be used as a voltage reference(1ohm will be used later). Fans were added to increase airflow. The mosfets was burning hot. We had to use different power supply Tektronix with parallel supply to provide a current of 4 amps max. We obtained the optics required for this laser experiment. .

11/9/16

Today we got the linearization of the current using the lm324 opamp. We can now more accurately control the current going throught the laser. The mosfets was mounted on to a scrap metal due to over heating. The infrared thermometer was attached pointing to the mosfets to monitor the temp bcs it was over heating. We still didn’t have the 1ohm resistor so opted for a 3ohm resistor that professor had at hand. The laser schematic was sligghly modified by movin g the laser to the source of the mosfets and in series with the resistor. we tried to pulse using the Arduino, however the analogWrite only provides a pulse waveform with modified duty cycle the voltage will yield a dc voltage (averaging of the square wave).