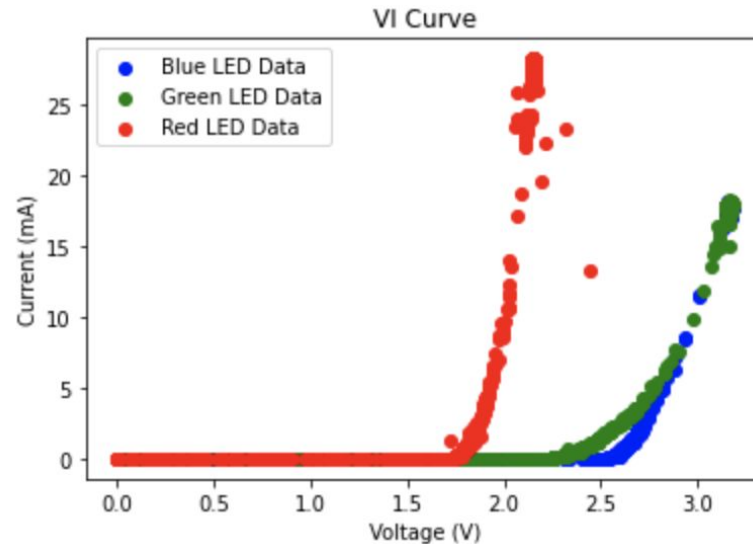


Lab 1D assignment

Charles Zhang

Voltage vs Current (VI) Plot for LEDs

Include data for all 3 LEDs on the same plot. Make sure you label your plot and include a legend.

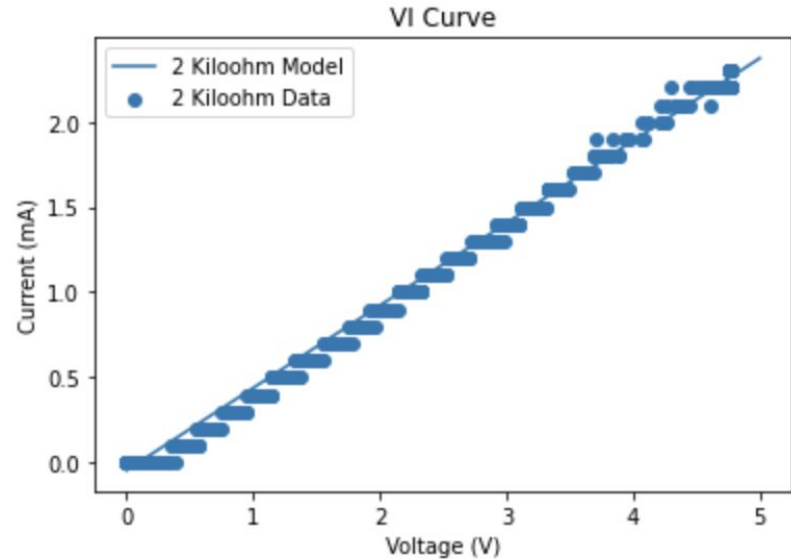


Voltage vs Current (VI) Plot for 2k Ohm Resistor

Include a linear fit and make sure to write what the fit equation is. Make sure you label your plot and include a legend.

Equation:

$$0.4836767301239507 \text{ (V)} - 0.045253094306536686$$



Discussion

Comment on the following:

- 1) How the color of the LED affects your data - Generally, the red LED caused current readings to begin at a lower voltage, then green, then blue. As the voltage got higher, the current increased much more rapidly in the red LED, and at very similar paces for the green and blue.
- 2) How well your fit equation matches Ohm's law - My fit equation is pretty accurate, with a y-intercept of nearly 0 and a slope that implies the resistance is approximately $2.06 \text{ k}\Omega$, and linear as predicted