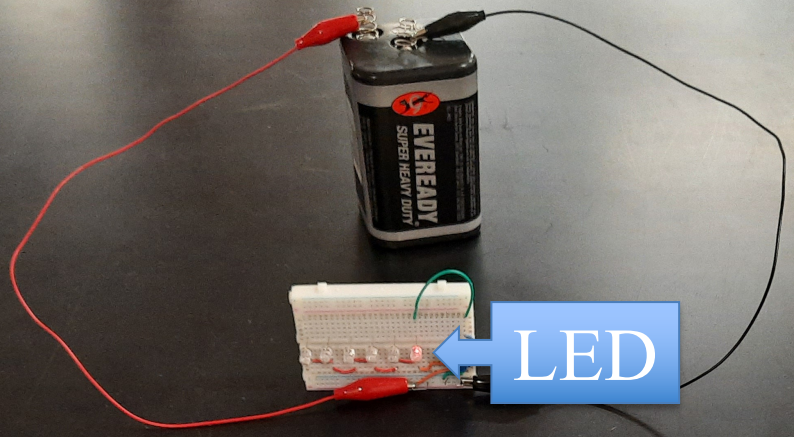
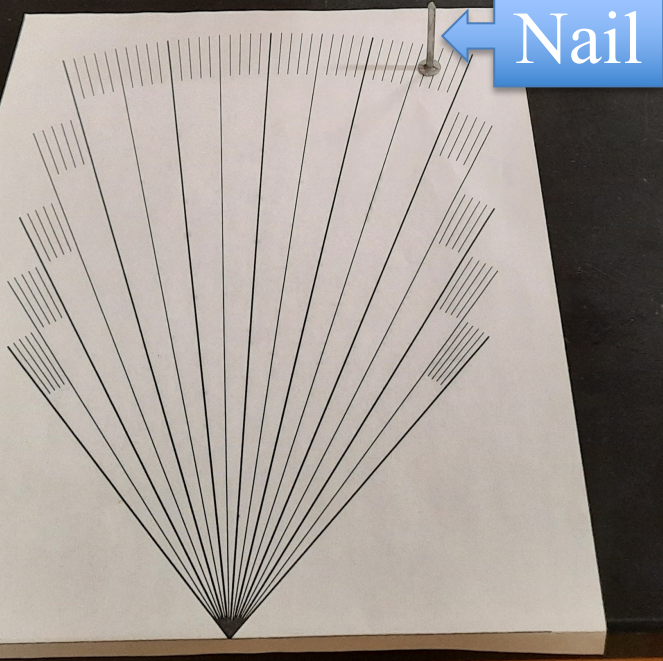


Mini-Lab: Diffraction Grating & Wavelength of Light

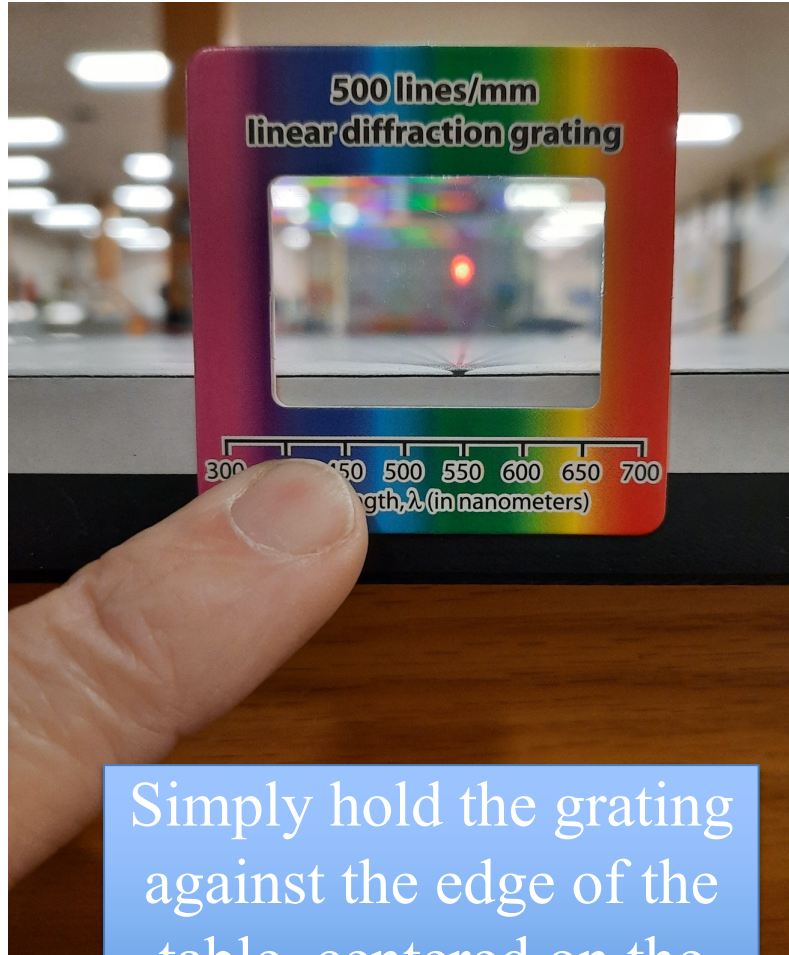
1. Goal is to determine wavelength of light for each color of LED: ROYGBV.
2. Observe the LED through each diffraction grating: 500, 536, 1000 lines per millimeter. Determine the angle between the central image (the LED itself) and the 1st order image on either side of it.
3. Determine the mean value for the three calculated wavelengths of each.



LED



Nail



Simply hold the grating against the edge of the table, centered on the vertex of the angle.

1st Order
Image

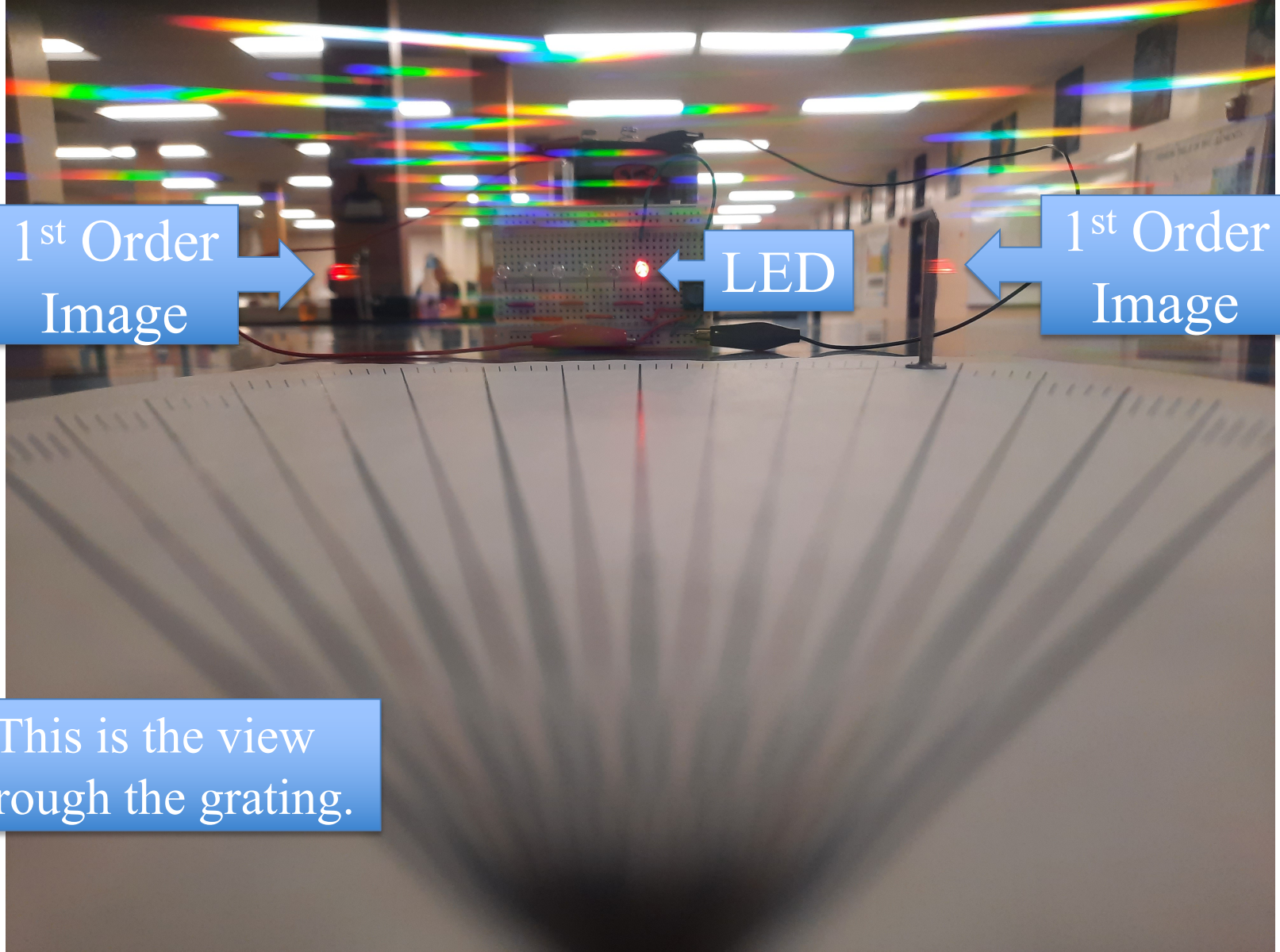


LED



1st Order
Image

This is the view
through the grating.





Align LED
with centerline
and your eye



Mark location
with the nail

Move your eye to align
angle of 1st order image