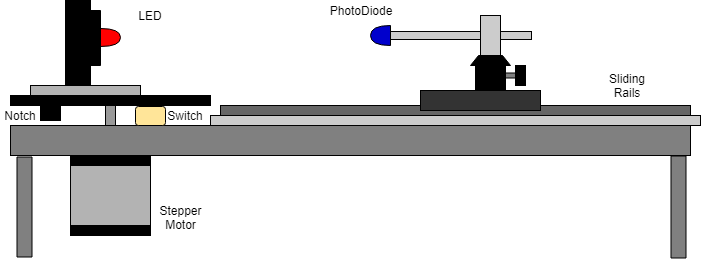
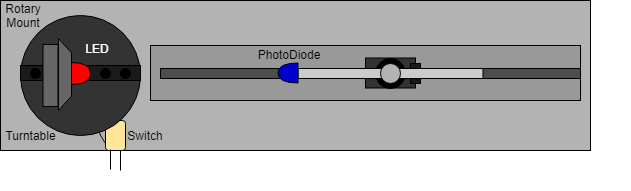
# Beam Profiler

## Apparatus





## Electronics

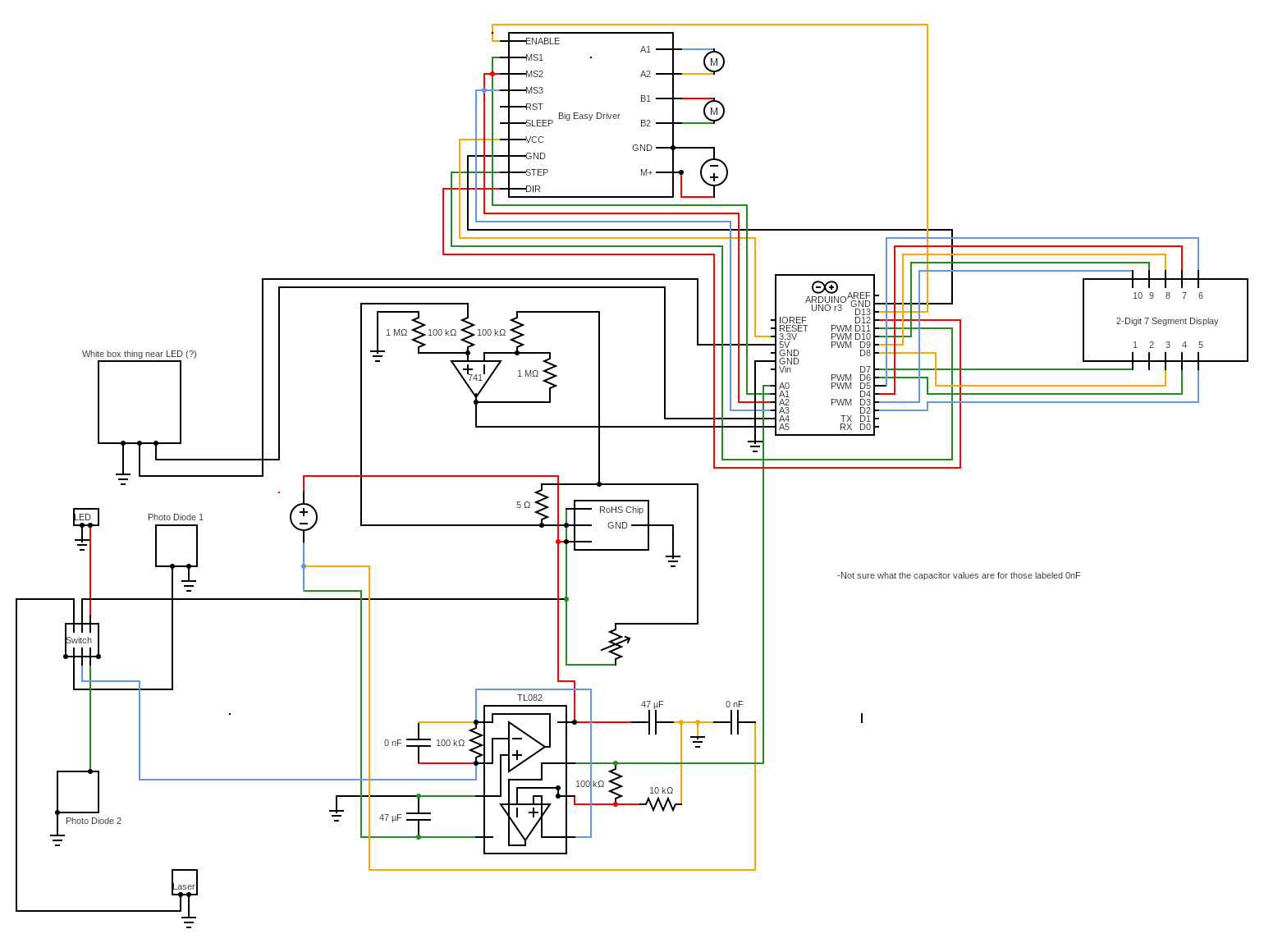


Figure 1 Circuit Schematic

## Procedure

### Beam Profile

1. Download/Clone UV-Sintec github (<https://github.com/Barry8197/UV-Sintec>)
2. Upload BeamProfiler.ino to Arduino
3. Plug in Power Sources (separate supply for the motor and circuitry) . 13V positive and negative and 13V to motor separately.(To be explained when mounted)
4. Centre LED over the centre of the Turntable. Make sure that mounts are securely fastened to turntable to minimize the vibration felt by the LED.
5. Line up Photodiode to the centre of the LED.
6. Make sure switch is powered so that LED emits light.
7. Adjust alan key to make the switch trigger at roughly when the turntable is perpendicular to the sliding rail.
8. Run UV-Sintec/BeamProfile/LEDSweep.py. Make Sure the COM port matches that of the computer being used.
9. The Turntable should reset itself to the home position. The Program will ask for the Product Key of the LED, the number of turns desired and the Boxcar.
10. The program will then ask if you would like to add this to the database. ( The program will check if this is a duplicate and if you would like to overwrite the data)

### Cosine Response

1. Download/Clone UV-Sintec github (<https://github.com/Barry8197/UV-Sintec>)
2. Upload BeamProfiler.ino to Arduino
3. Plug in Power Sources (separate supply for the motor and circuitry) . 13V positive and negative and 13V to motor separately.(To be explained when mounted)
4. Centre LED over the centre of the Turntable. Make sure as mounts are securely fastened to turntable to minimize the vibration felt by the LED.
5. Line Up Photodiode to the centre of the LED.
6. Make sure switch is powered so that LED emits light.
7. Adjust Alan key to make the switch trigger at roughly when the turntable is perpendicular to the sliding rail.
8. Run UV-Sintec/BeamProfile/CosineResposne.py. Make Sure the COM port matches that of the computer being used.
9. The Turntable should reset itself to the home position. The Program will ask for the Product Key of the LED, the number of turns desired and the Boxcar.
10. The program will then ask if you would like to add this to the database. ( The program will check if this is a duplicate and if you would like to overwrite the data)