

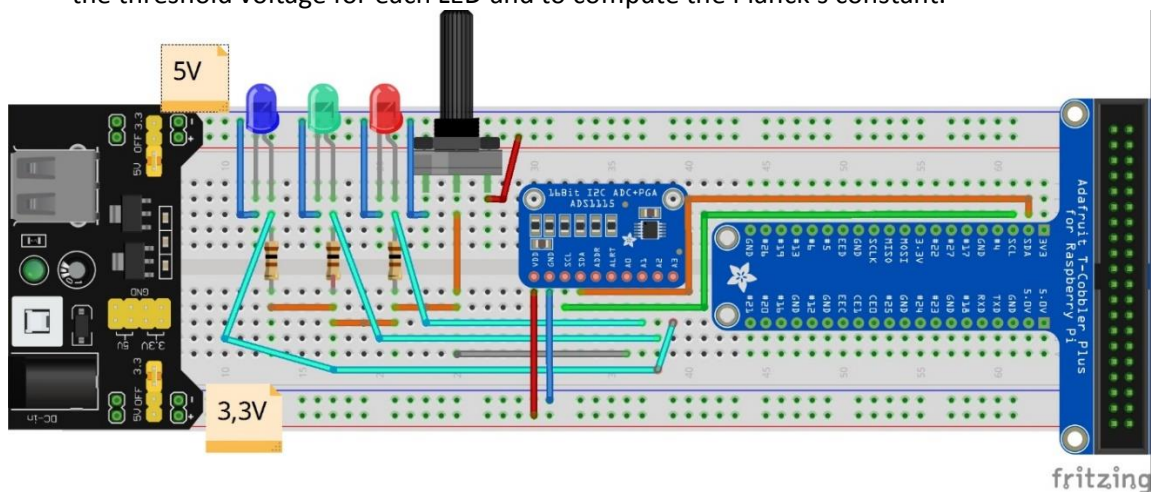
Investigating Planck's Constant with LEDs

PhyPiDAQ
Digital Measurement System Based on
Raspberry Pi



Objectives:

- Measure the current against voltage on LEDs with different wavelengths by connecting the ADS1115 analog-to digital converter at the Raspberry Pi.
- Use various graphical capabilities of the PhyPiDAQ-Software to visualize the characteristic curves of three different LEDs.
- Employ spreadsheets like LibreOffice or Excel to the recorded measurements to determine the threshold voltage for each LED and to compute the Planck's constant.



Experimental setup to measure the current in each LED as the voltage is gradually increased. The ADS1115 convertor allows current-voltage measurements on three different LEDs at the same time.

Configurations:

-Configure the experiment and the ADS1115-convertor on the Graphical Interface of the PhyPiDAQ Software according to
`ADS1115Config_3LEDS.yaml`
`3LED_red_green_blue.daq`

Measurements

