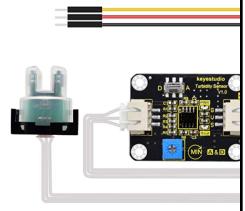
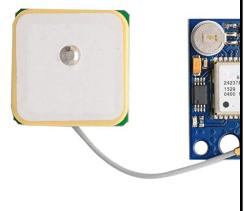
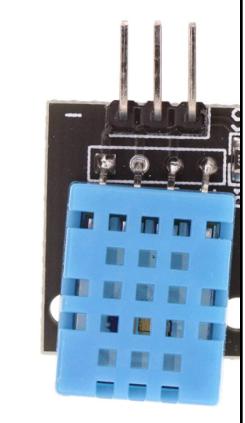


Component Data Table

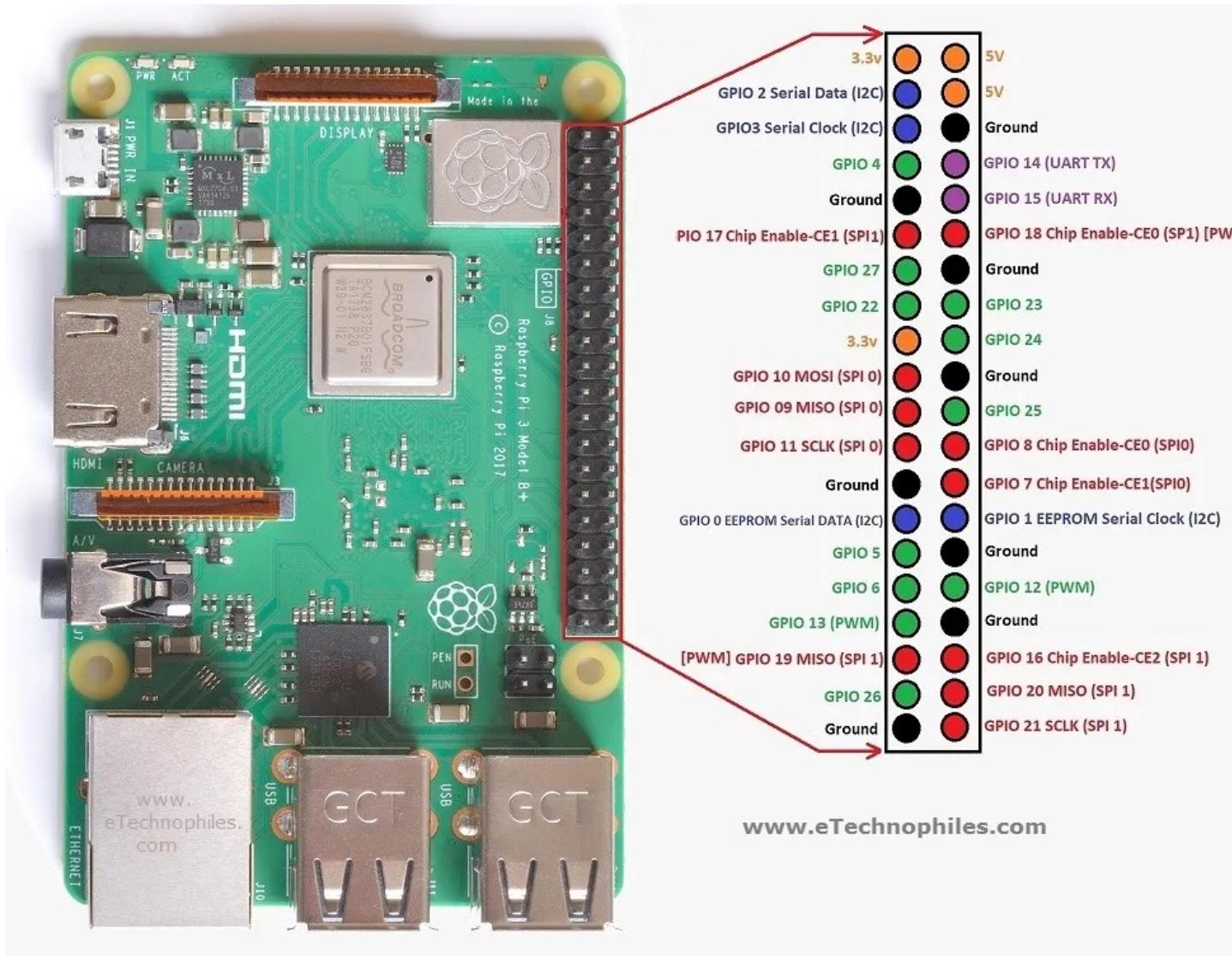
In this table, it discloses the specific components, their costs, and links to data sheets and store page links.

Component	Image of component:	Cost:	Reference Link(s):	Relevant Data Sheets:
Raspberry Pi 3b+		Preowned	https://www.electrophiles.com/raspberry-pi-3-b-pinout-with-gpio-functions-schematic-and-specs-in-detail/	https://static.raspberrypi.org/files/product-briefs/Raspberry-Pi-Model-Bplus-Product-Brief.pdf
GoPro Hero 7		\$300	https://gopro.com/en/ca/out-of-the-box-experience/hero-7-black	N/A
12000 mAH Power Bank		Preowned	https://www.bestbuy.ca/en-ca/product/insignia-12000mah-portable-power-bank-black-only-at-best-buy/11470020?icmp=Recos_3across_tp_sllng_products&referrer=PLP_Reco	N/A
ADS1115 Analog Digital Converter		\$15	https://www.amazon.ca/gp/product/B07G85HMLV/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1	https://www.ti.com/lit/ds/symlink/ads1114.pdf?ts=1649298836473&ref_url=https%253A%252Fwww.ti.com%252Fproduct%252FADS1114

Water Turbidity Sensor		\$18	https://www.amazon.ca/gp/product/B07Q657288/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1	https://wiki.keyestudio.com/KS0414_Keyestudio_Turbidity_Sensor_V1.0
NEO 6m GPS Module		\$27	https://www.amazon.ca/gp/product/B01H5FNA4K/ref=ppx_yo_dt_b_asin_title_o02_s00?ie=UTF8&psc=1	https://www.digikkey.com/htmldatasheets/product/n/2757457/0/0/1/neo-6.html
DHT11 Temperature Humidity Sensor		\$13	https://www.amazon.ca/Digital-Temperature-Relative-Humidity-Arduino/dp/B07SBTCGW8/ref=sr_1_105?keywords=HUABAN&qid=1649202528&sr=8-105	https://components101.com/sensors/dht11-temperature-sensor
Short Micro USB Cable		\$9	https://www.amazon.ca/gp/product/B013G4EAEI/ref=ppx_yo_dt_b_asin_title_o02_s00?ie=UTF8&th=1	N/A

Reference Guide for Raspberry Pi 3b+ pinout

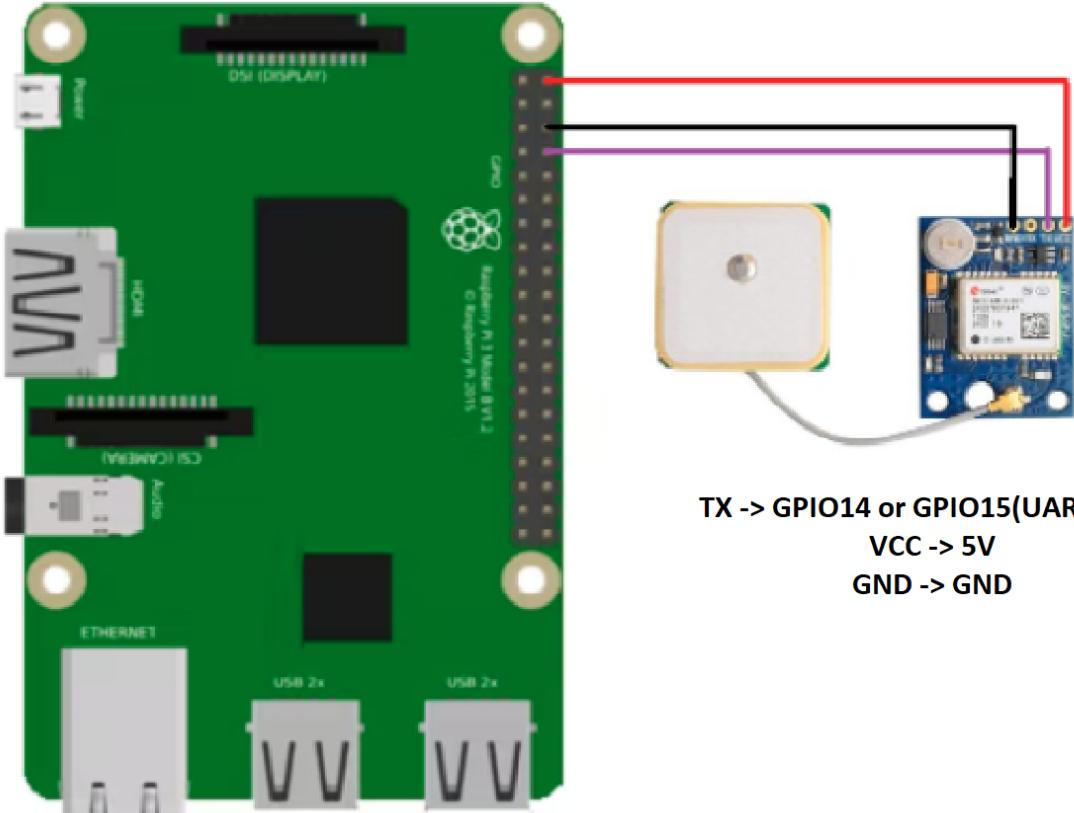
The Raspberry Pi 3b+ can be powered normally by the provided 2.5A wall plugin. For the case of this project, it is powered externally with a 12000mAH power bank, and a micro USB cable capable of providing enough power to the Raspberry Pi computer.



Wiring Diagrams

The following wiring diagrams were made to assist in connecting all components properly to the Raspberry Pi 3b+. These wiring diagrams were made by referencing the data sheets & formal documentation for each component. Each diagram was split into individual components to make it easier for the user to follow along and read.

Neo 6M GPS Module Wiring Diagram

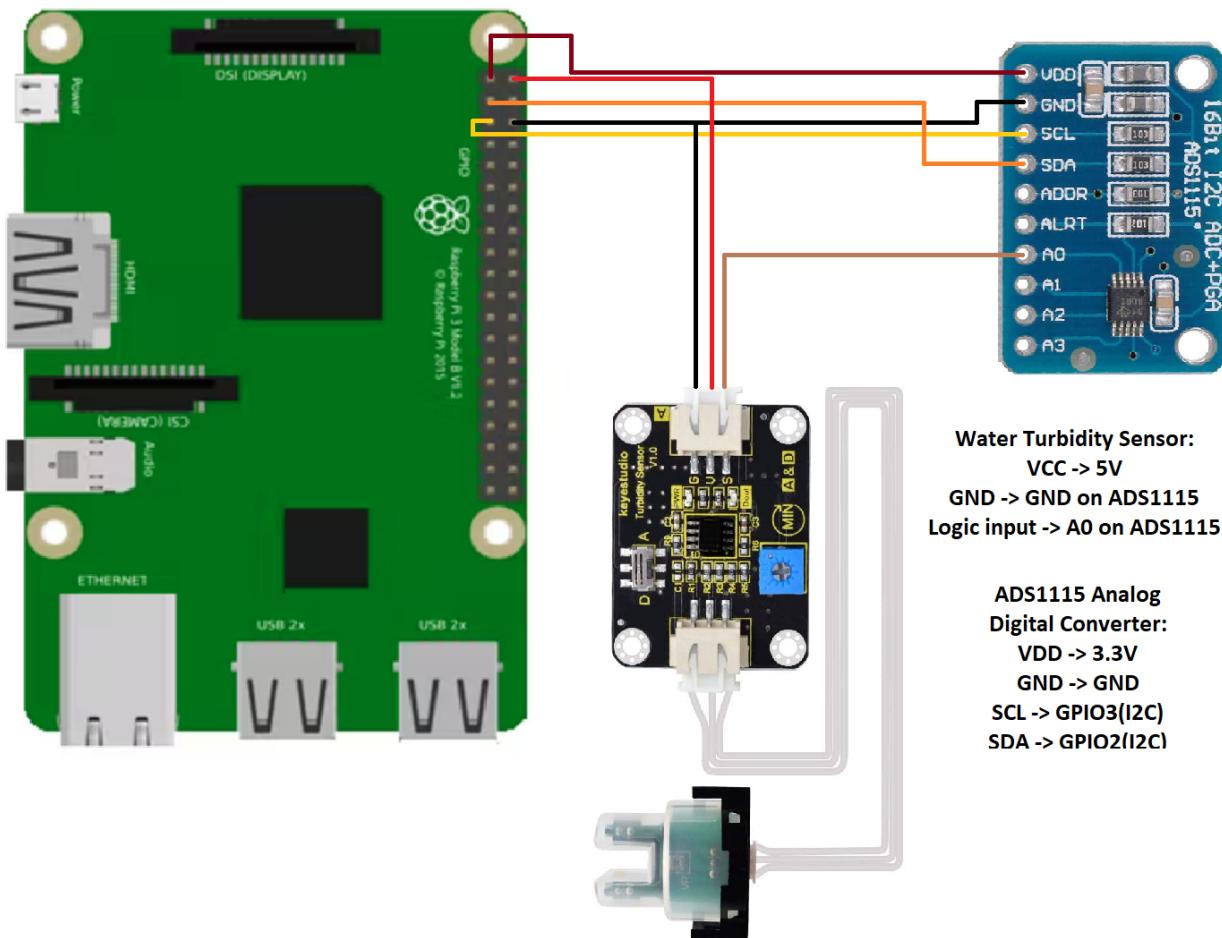


TX -> GPIO14 or GPIO15(UART pins)

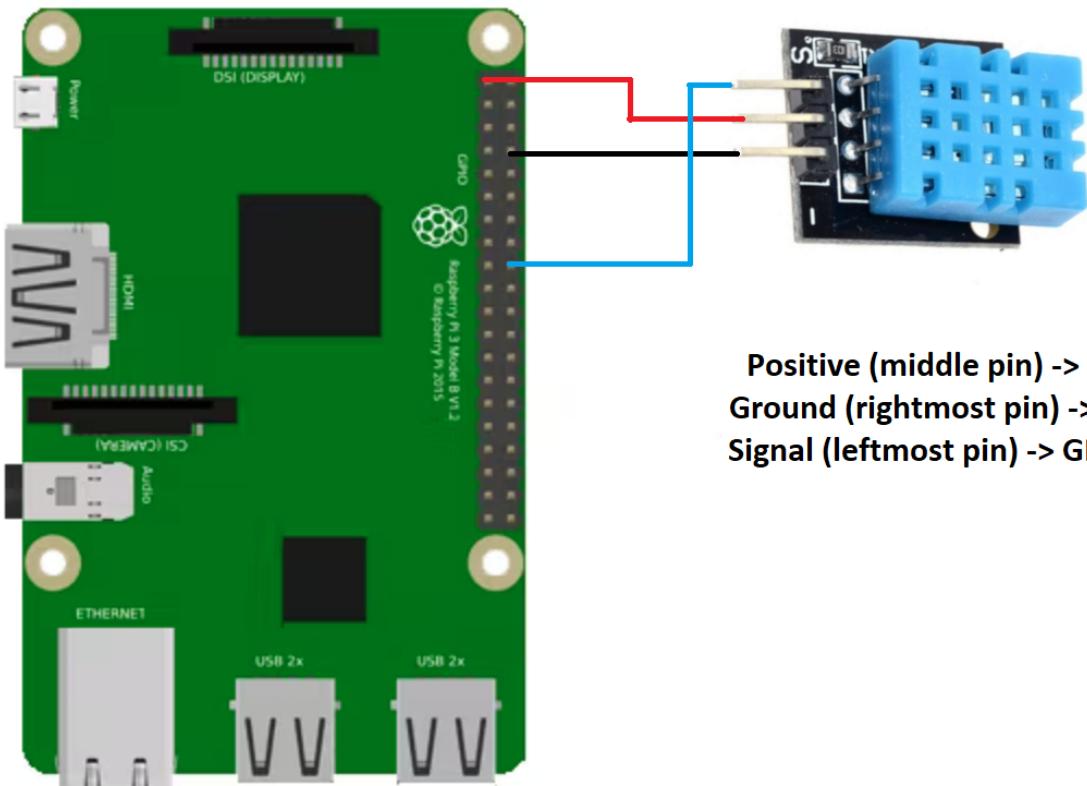
VCC -> 5V

GND -> GND

Water Turbidity Sensor & ADS1115 Wiring Diagram



DHT11 Temperature & Humidity Sensor Wiring Diagram



Positive (middle pin) -> 3.3V
Ground (rightmost pin) -> GND
Signal (leftmost pin) -> GPIO23