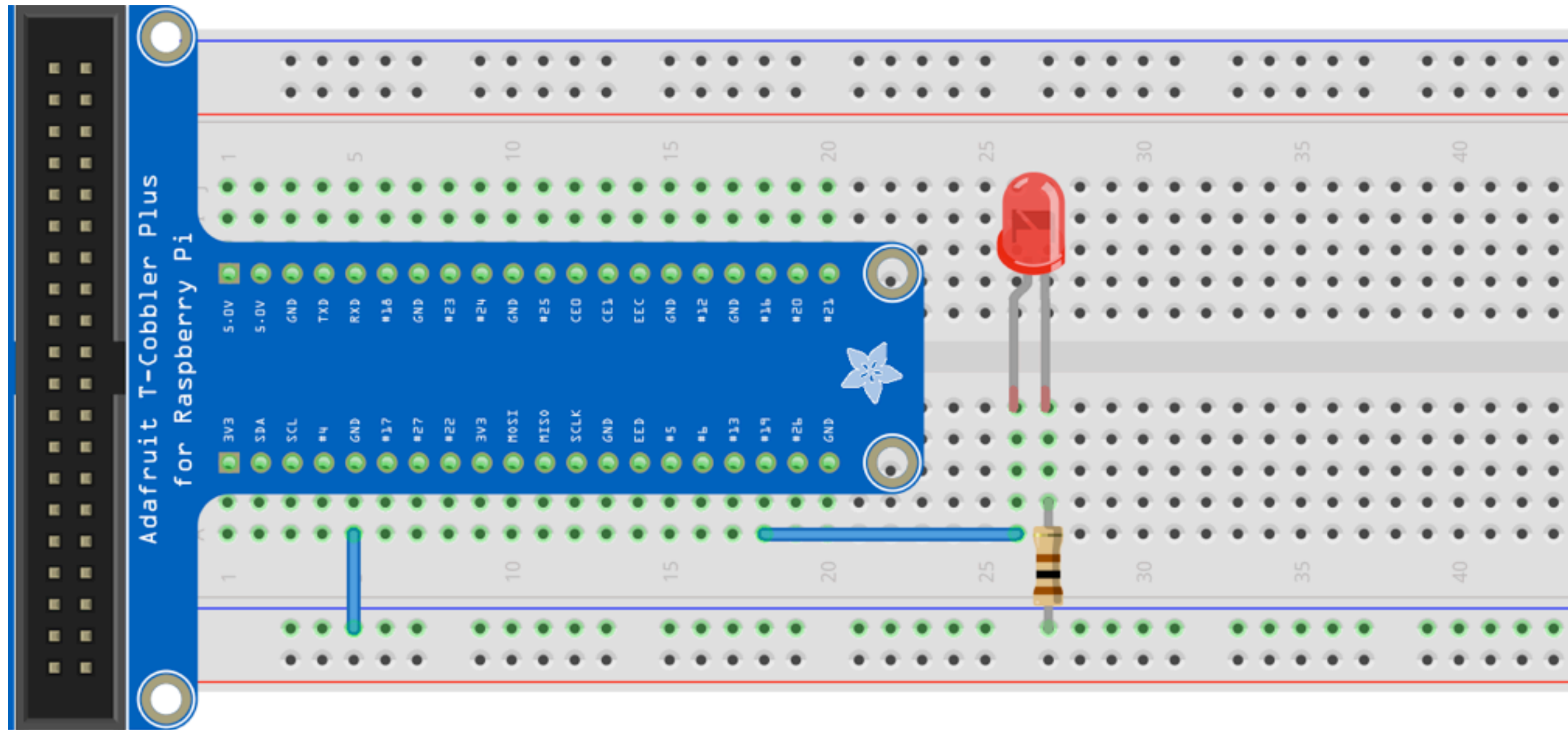
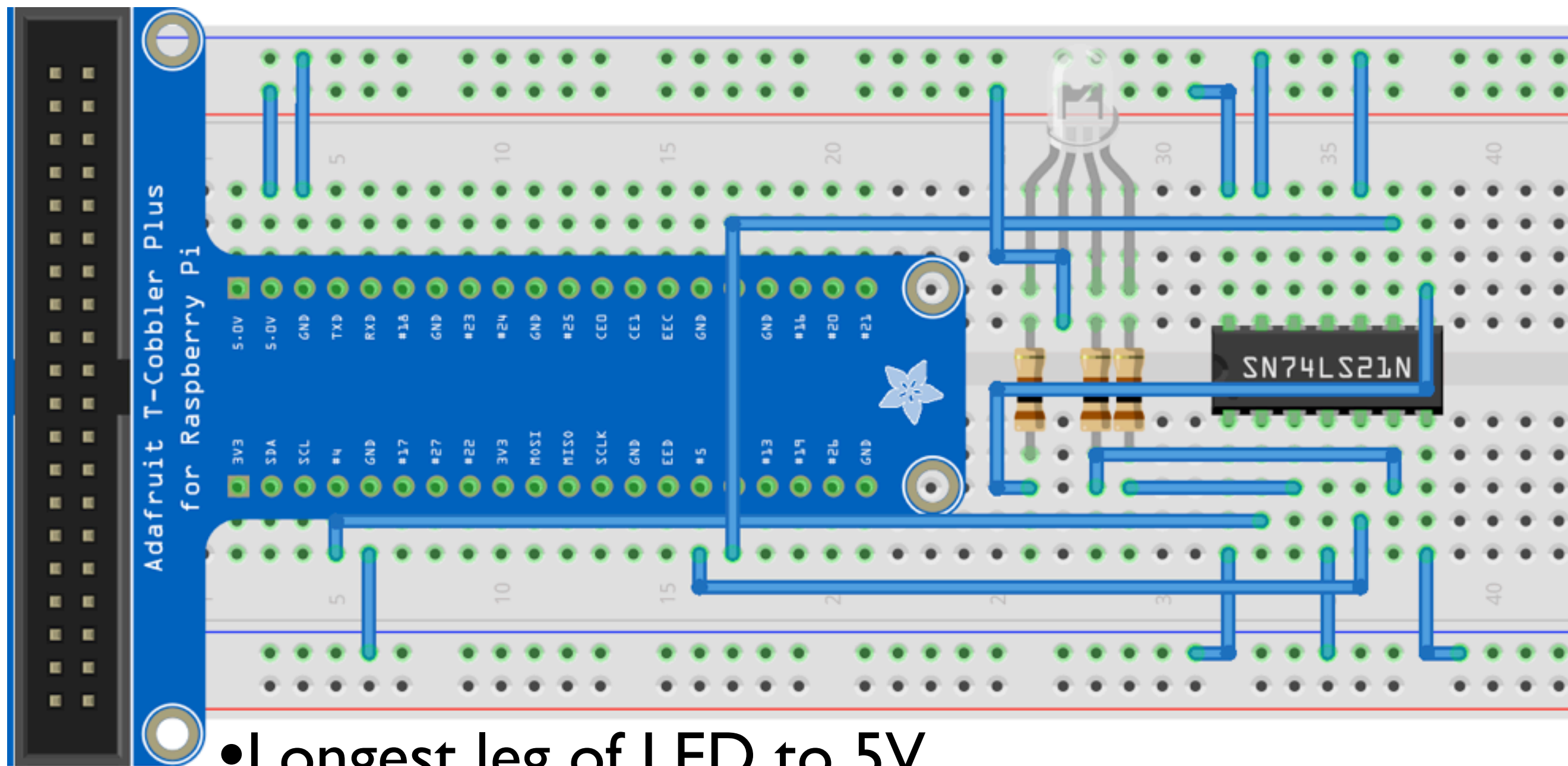


# GPIO & Red LED



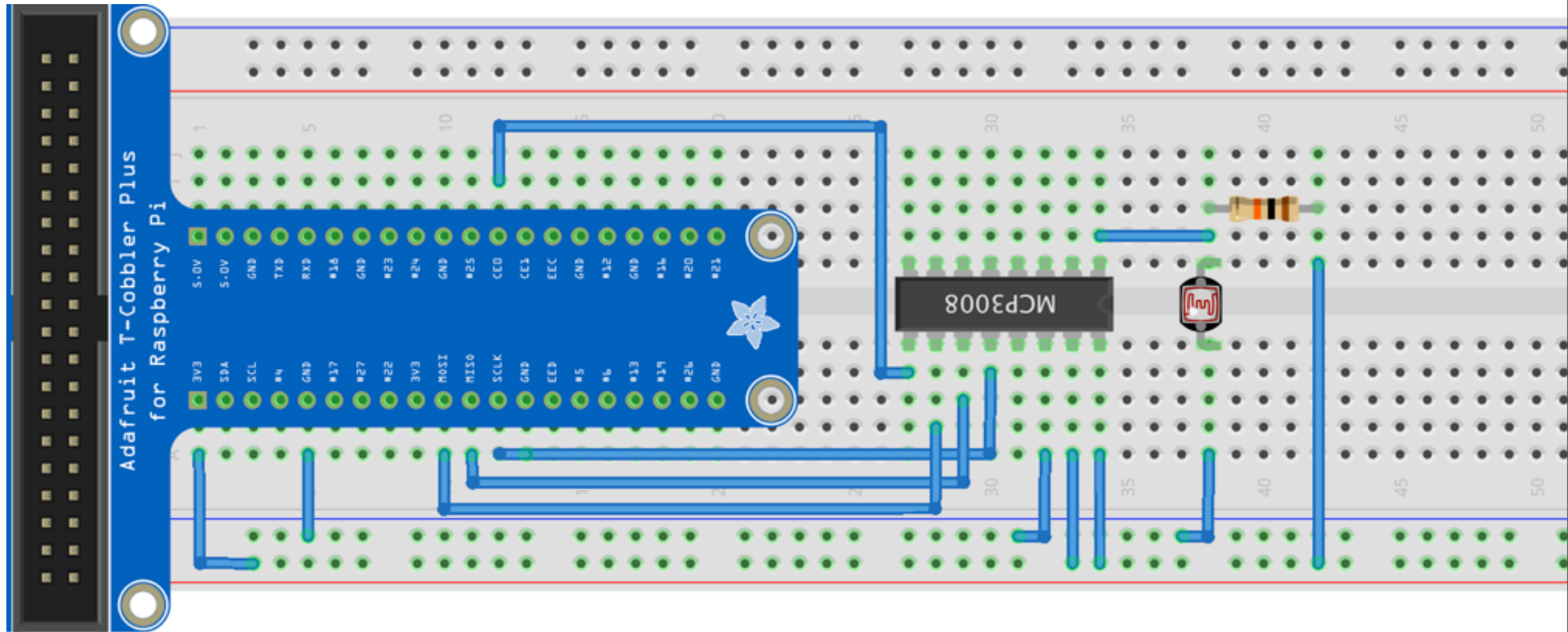
- Long leg of LED to Pin 13
- Short leg to resistor, then to Ground

# Level Shifter & RGB LED



- Longest leg of LED to 5V
- Other legs to Resistors, then Level Shifter
- Level Shifter inputs to Pins 4, 5, & 6
- 5 Ground lines on Level Shifter

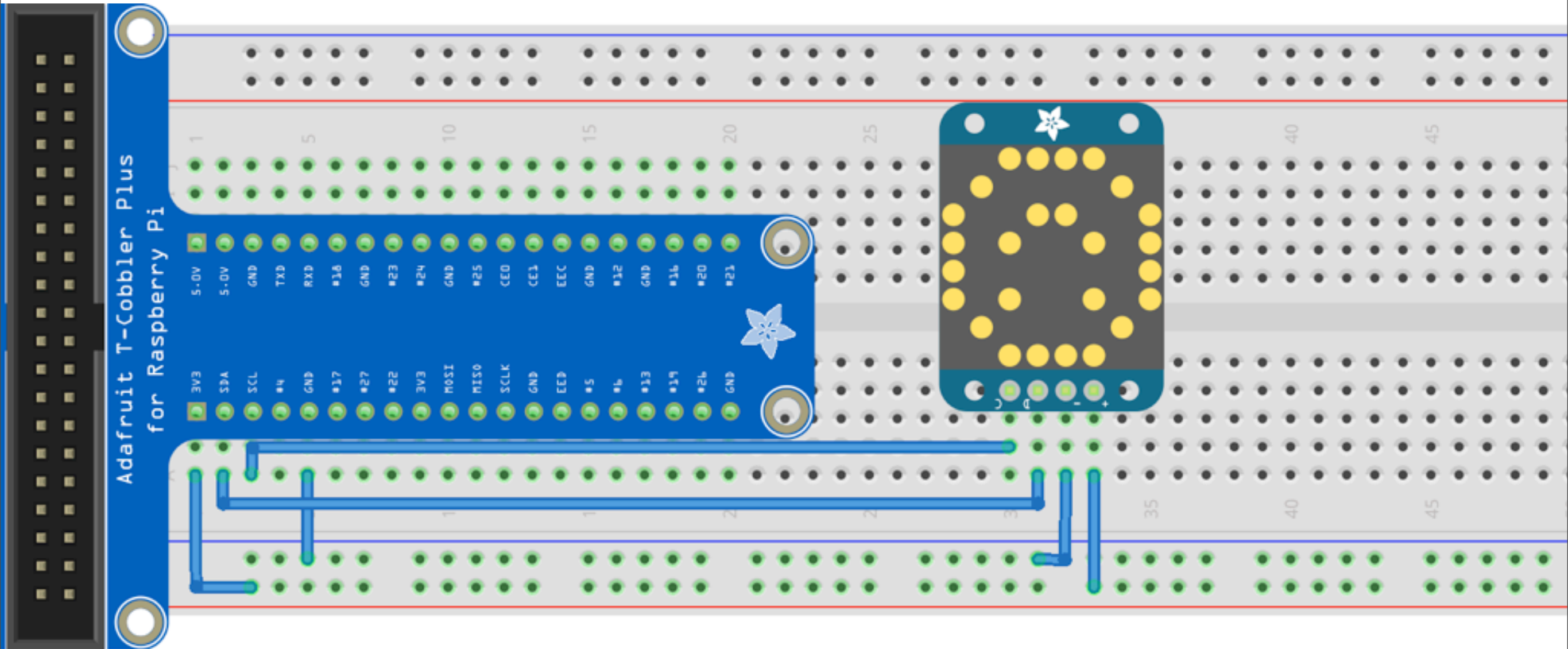
# Photoresistor, ADC, & SPI



- Ground -> Photoresistor -> Resistor -> 3.3V
- ADC input -> junction Photoresistor & Resistor
- ADC connects to SCLK, MISO, MOSI, CE0
- 8 analog inputs on one side of ADC



# 8x8 LED Matrix & I<sup>2</sup>C



- LED + to 3.3V
- LED - to Ground
- LED C to RasPi SCL
- LED D to RasPi SDA