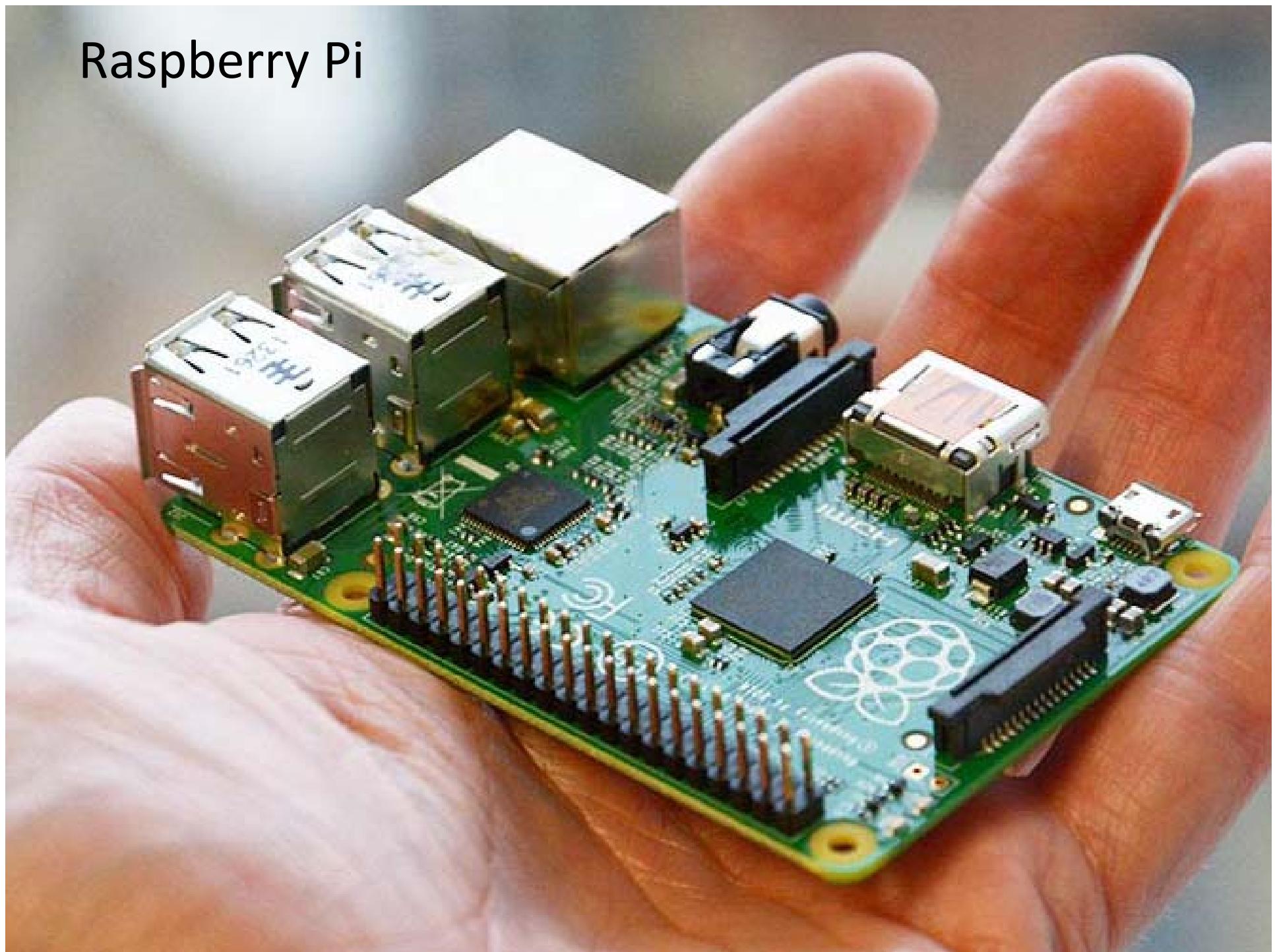
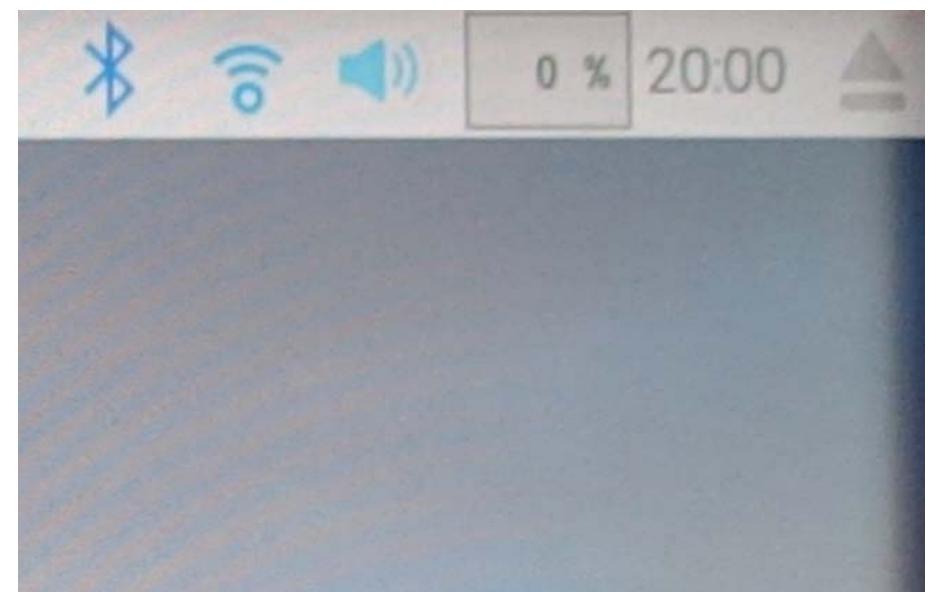
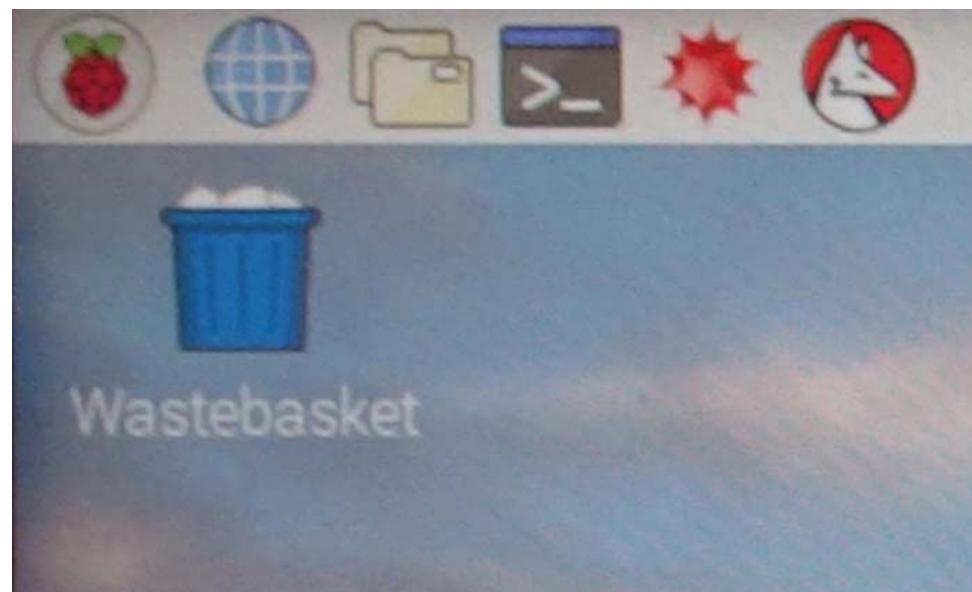
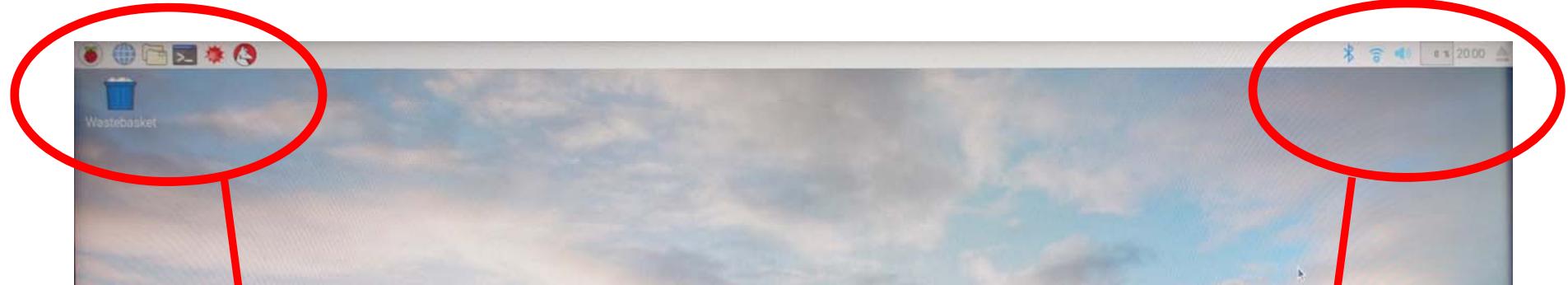


# Raspberry pie

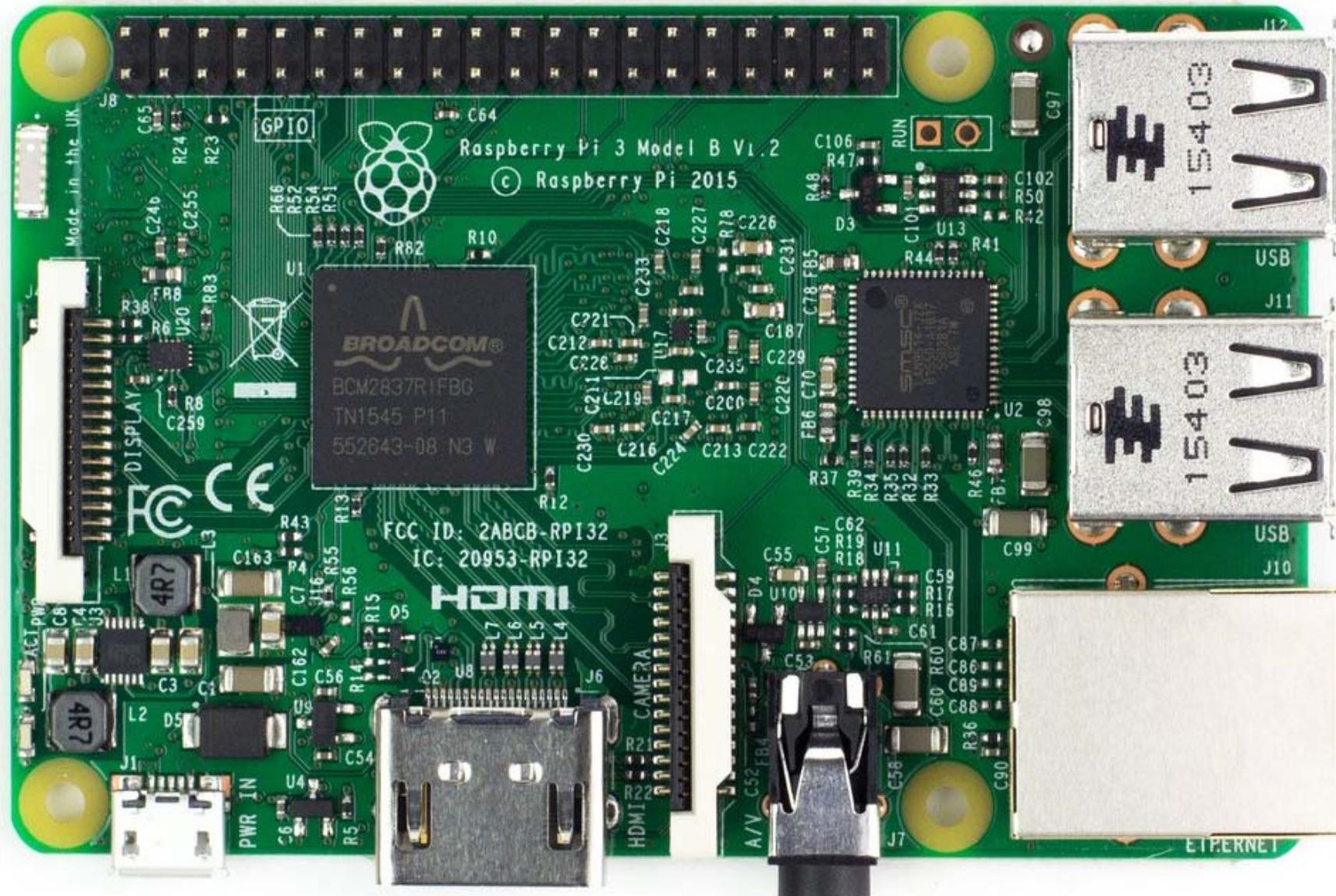


# Raspberry Pi



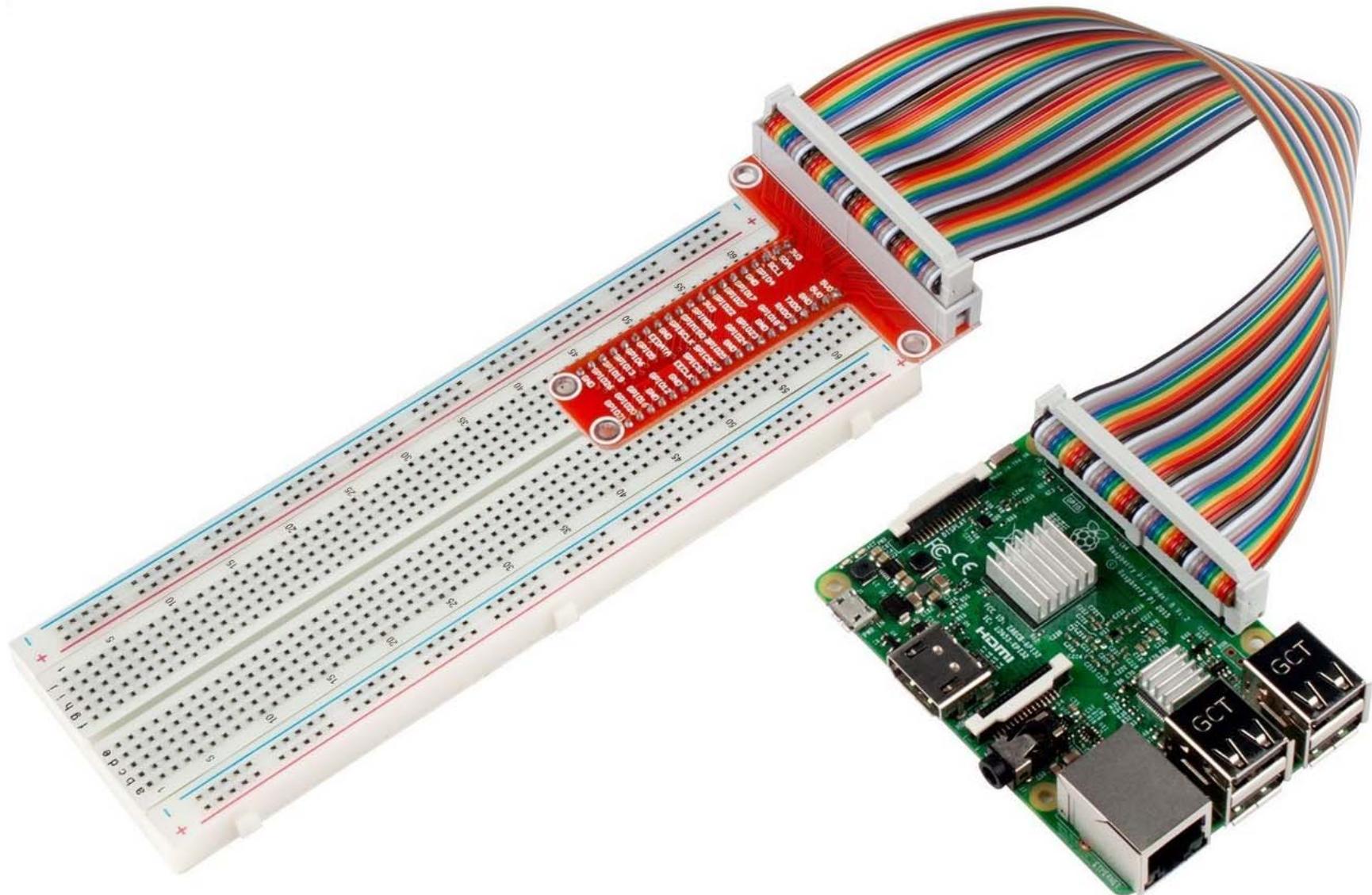


# GPIO: General Purpose I/O



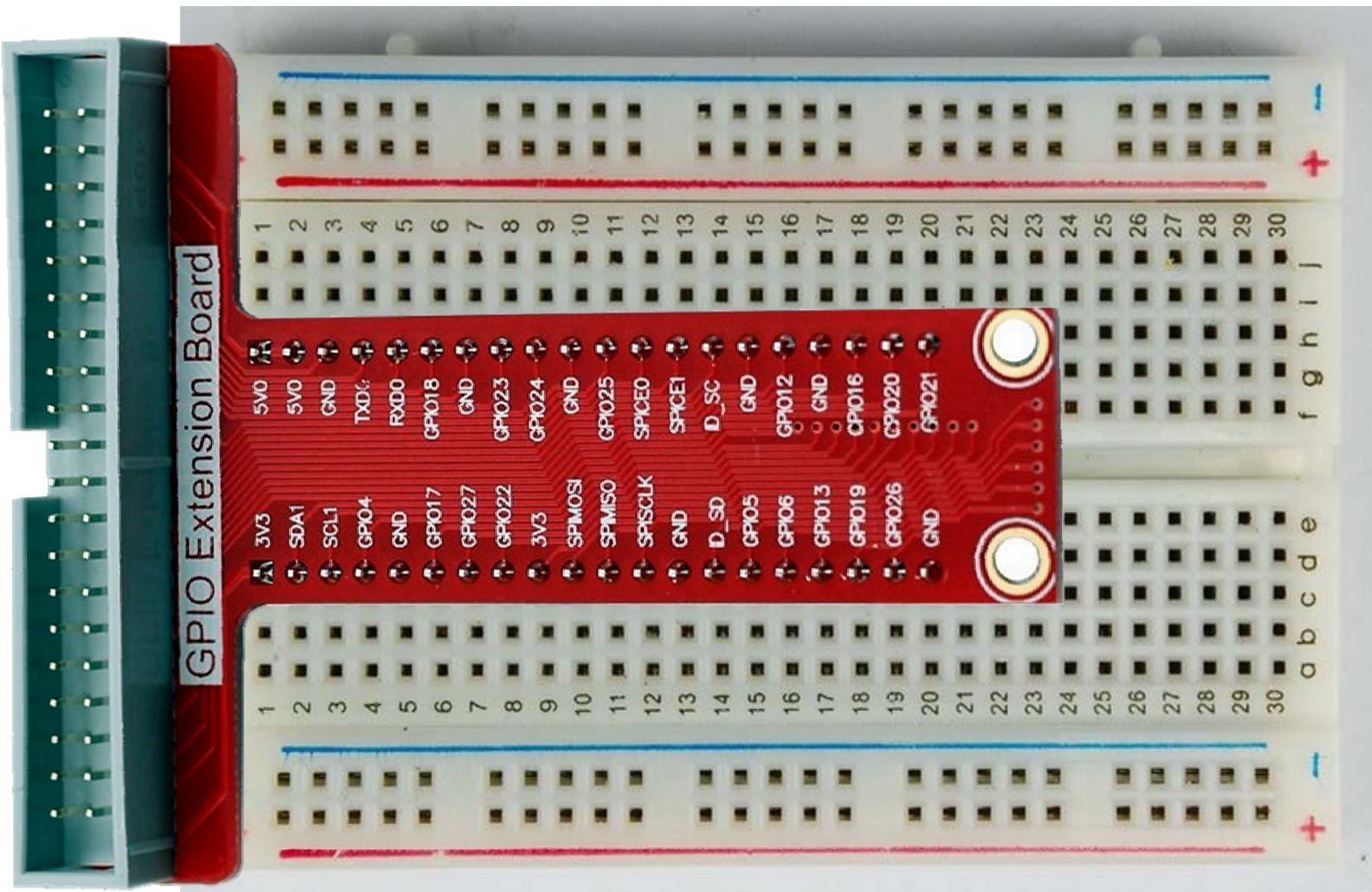


Alternate Function	
3.3V PWR	1
I2C1 SDA	GPIO 2
I2C1 SCL	GPIO 3
GPIO 4	5
GND	7
GPIO 17	9
GPIO 27	11
GPIO 22	13
3.3V PWR	15
SPI0 MOSI	GPIO 10
SPI0 MISO	GPIO 9
SPI0 SCLK	GPIO 11
GND	19
Reserved	21
GPIO 11	23
GND	25
Reserved	27
GPIO 5	29
GPIO 6	31
GPIO 13	33
SPI1 MISO	GPIO 19
GPIO 26	35
GND	37
2	5V PWR
4	5V PWR
6	GND
8	UART0 TX
10	UART0 RX
12	GPIO 18
14	GND
16	GPIO 23
18	GPIO 24
20	GND
22	GPIO 25
24	GPIO 8
26	GPIO 7
28	Reserved
30	GND
32	GPIO 12
34	GND
36	GPIO 16
38	GPIO 20
40	GPIO 21
SPI0 CS0	
SPI0 CS1	
SPI1 CS0	
SPI1 MOSI	
SPI1 SCLK	

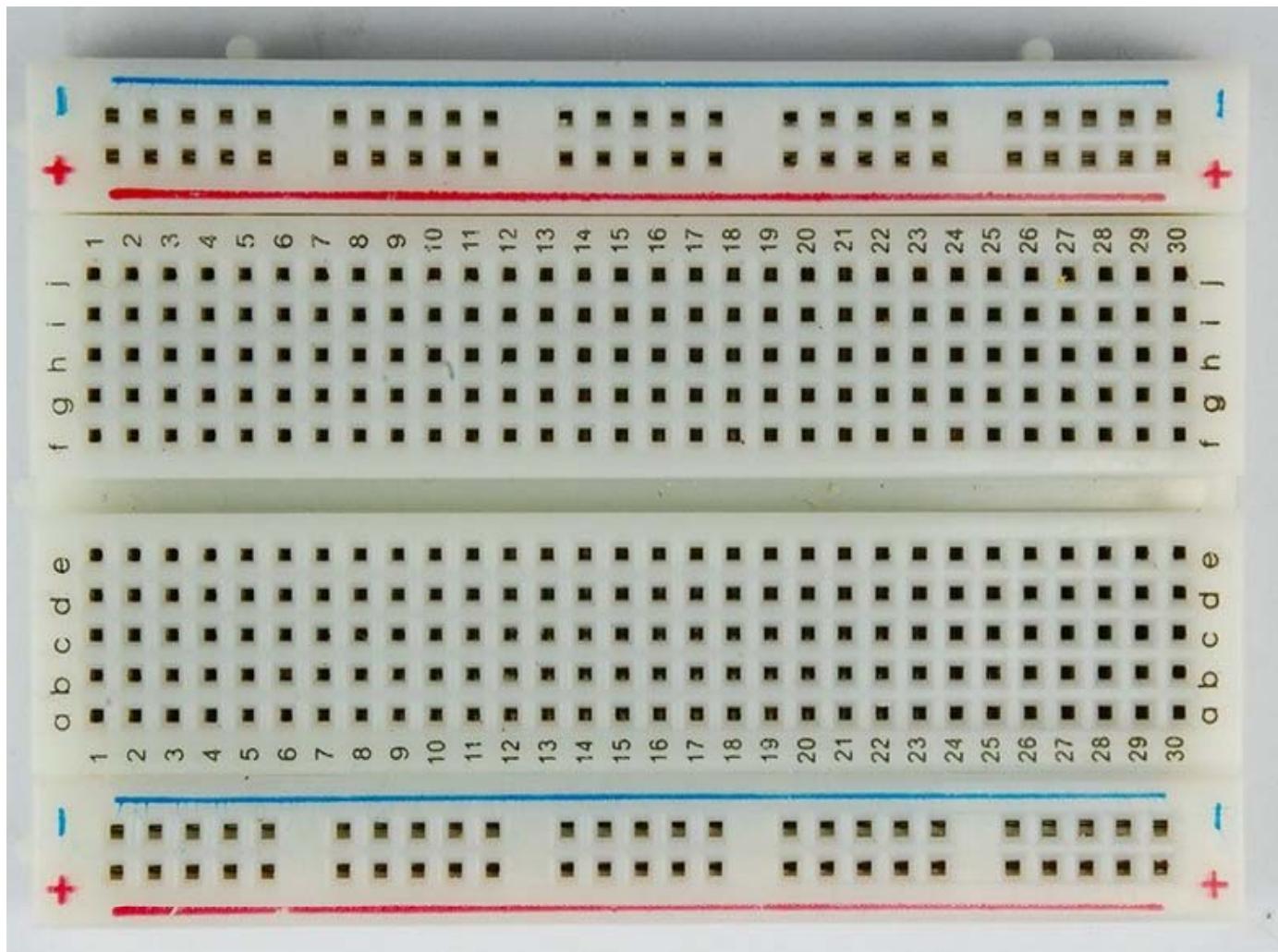


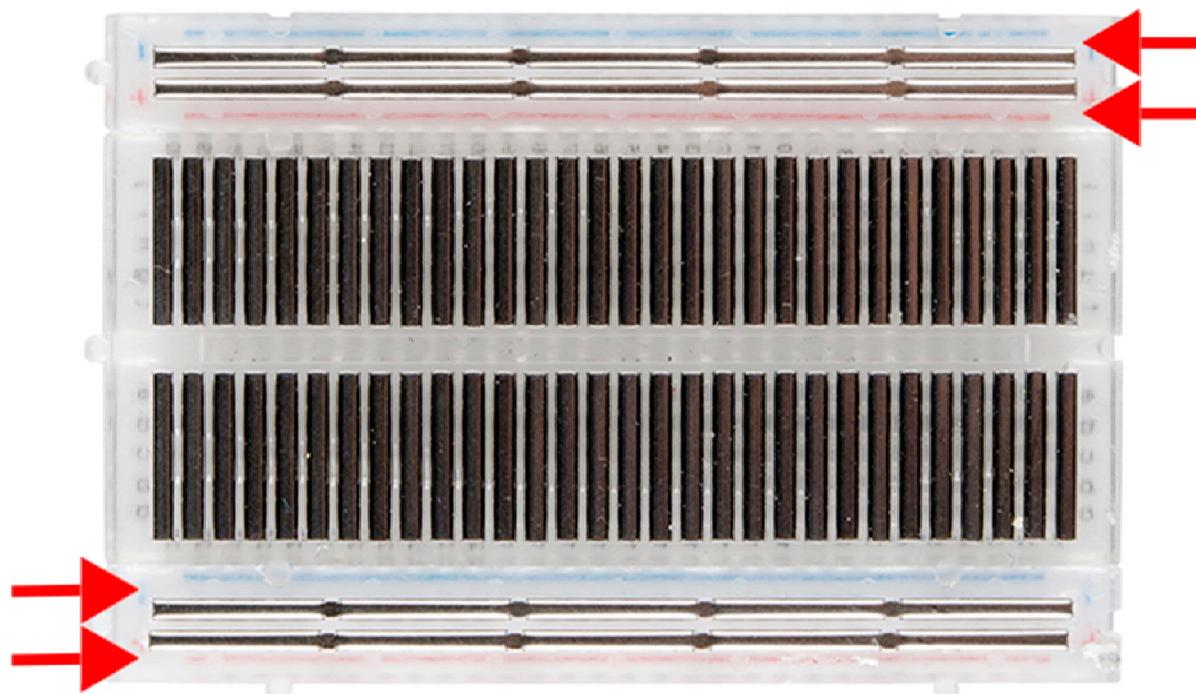
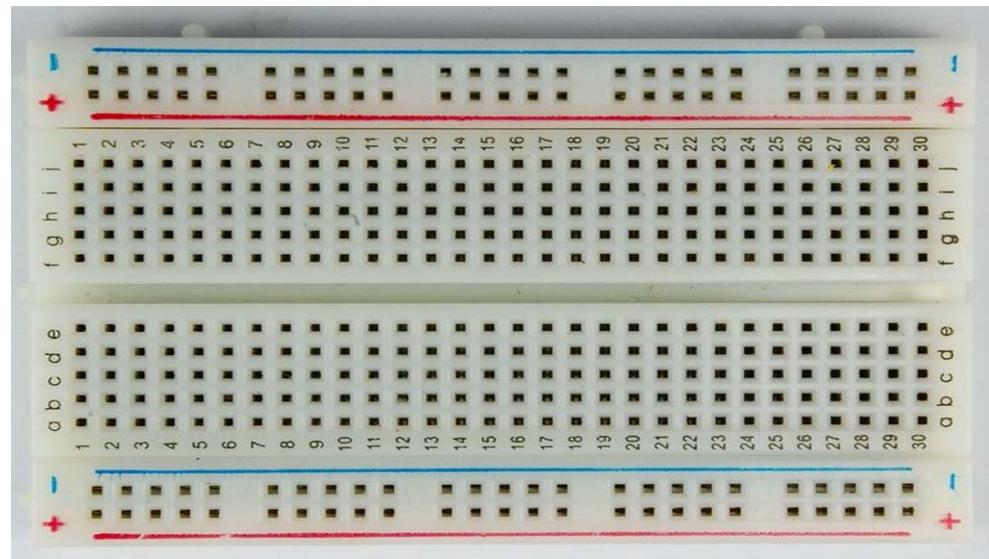


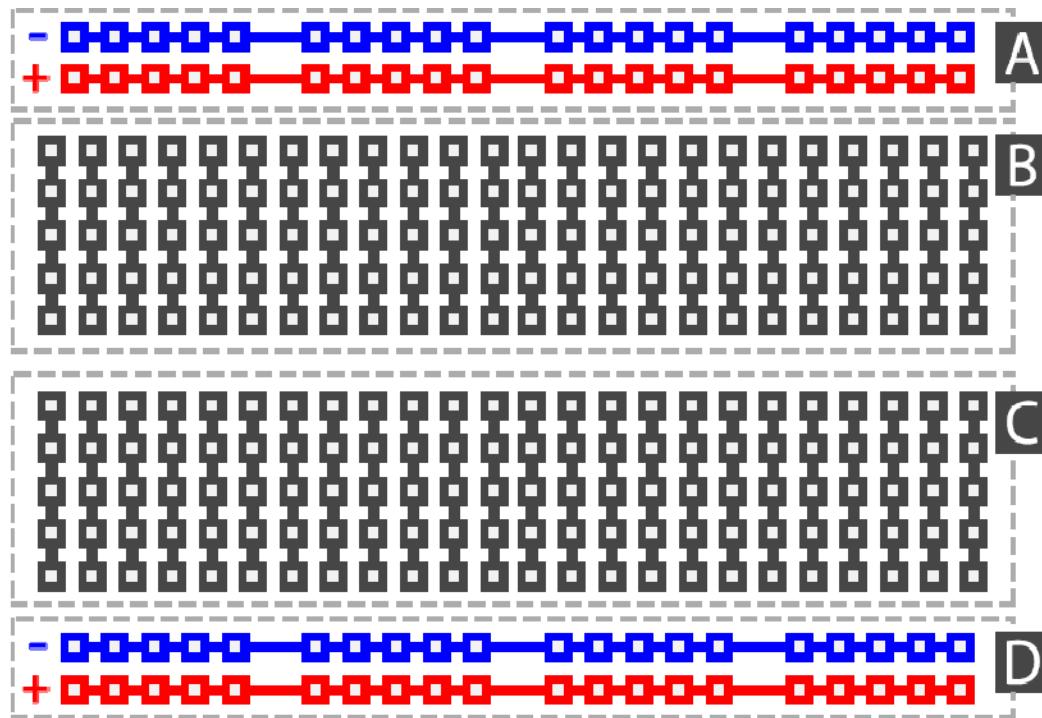
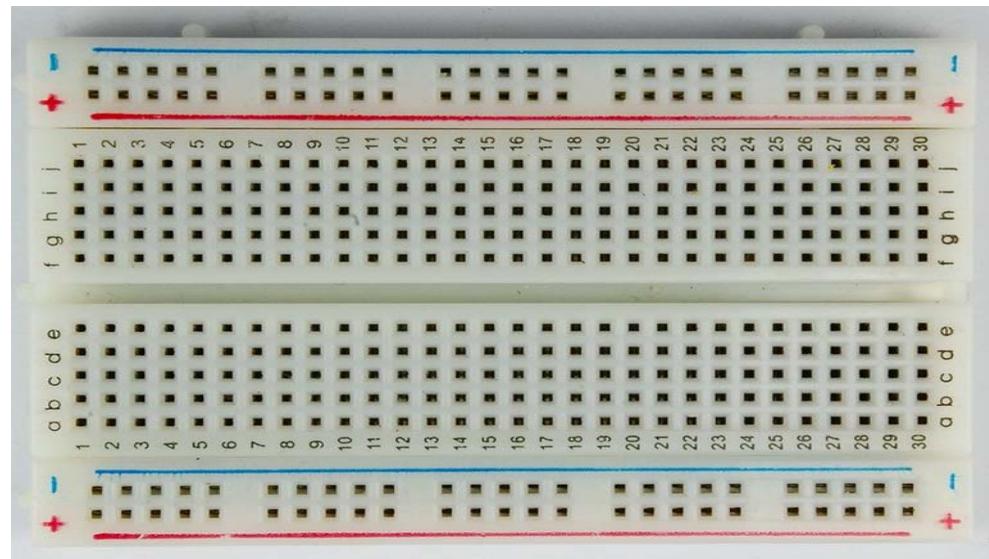
# Breadboard

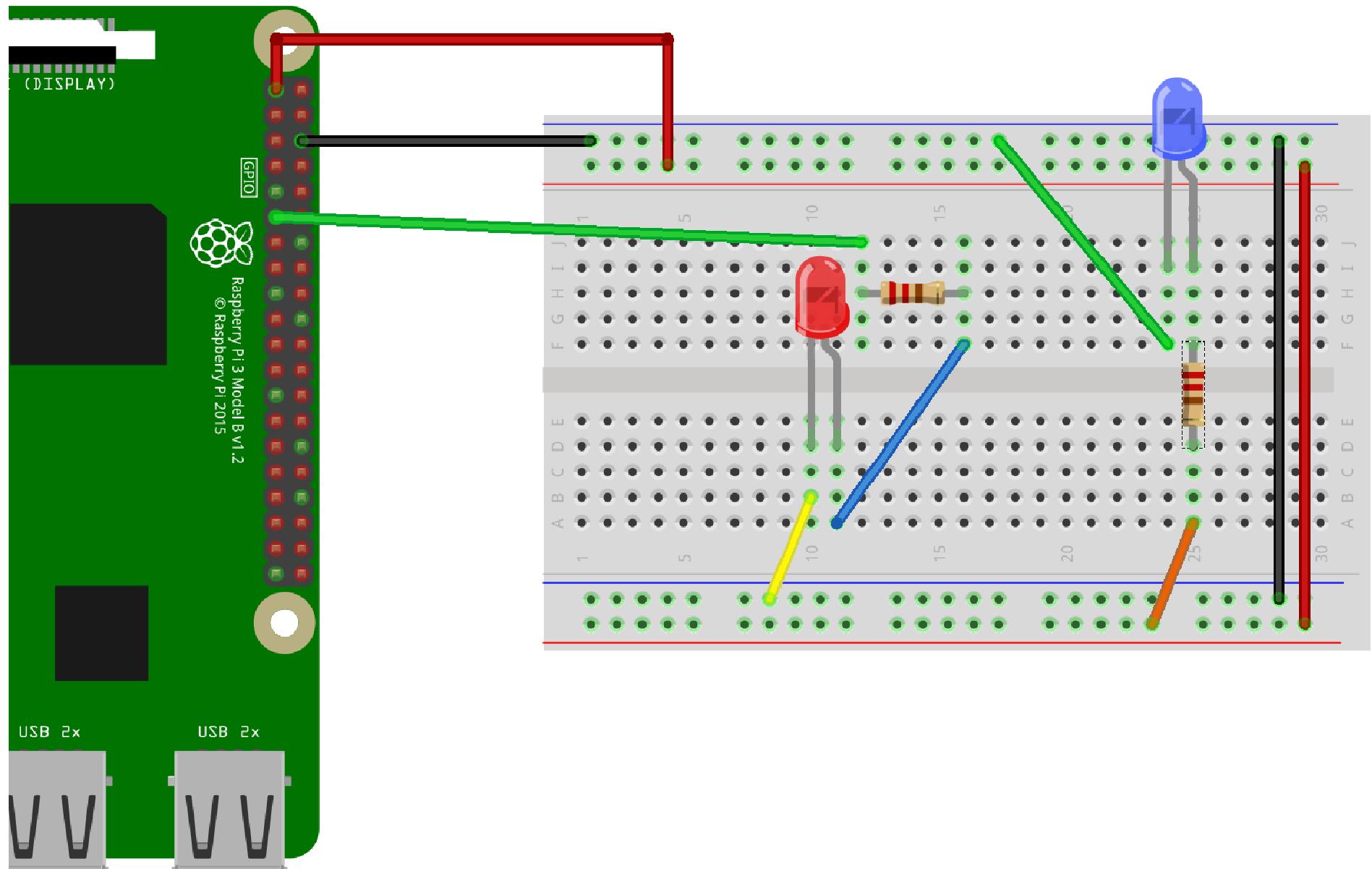


# Breadboard

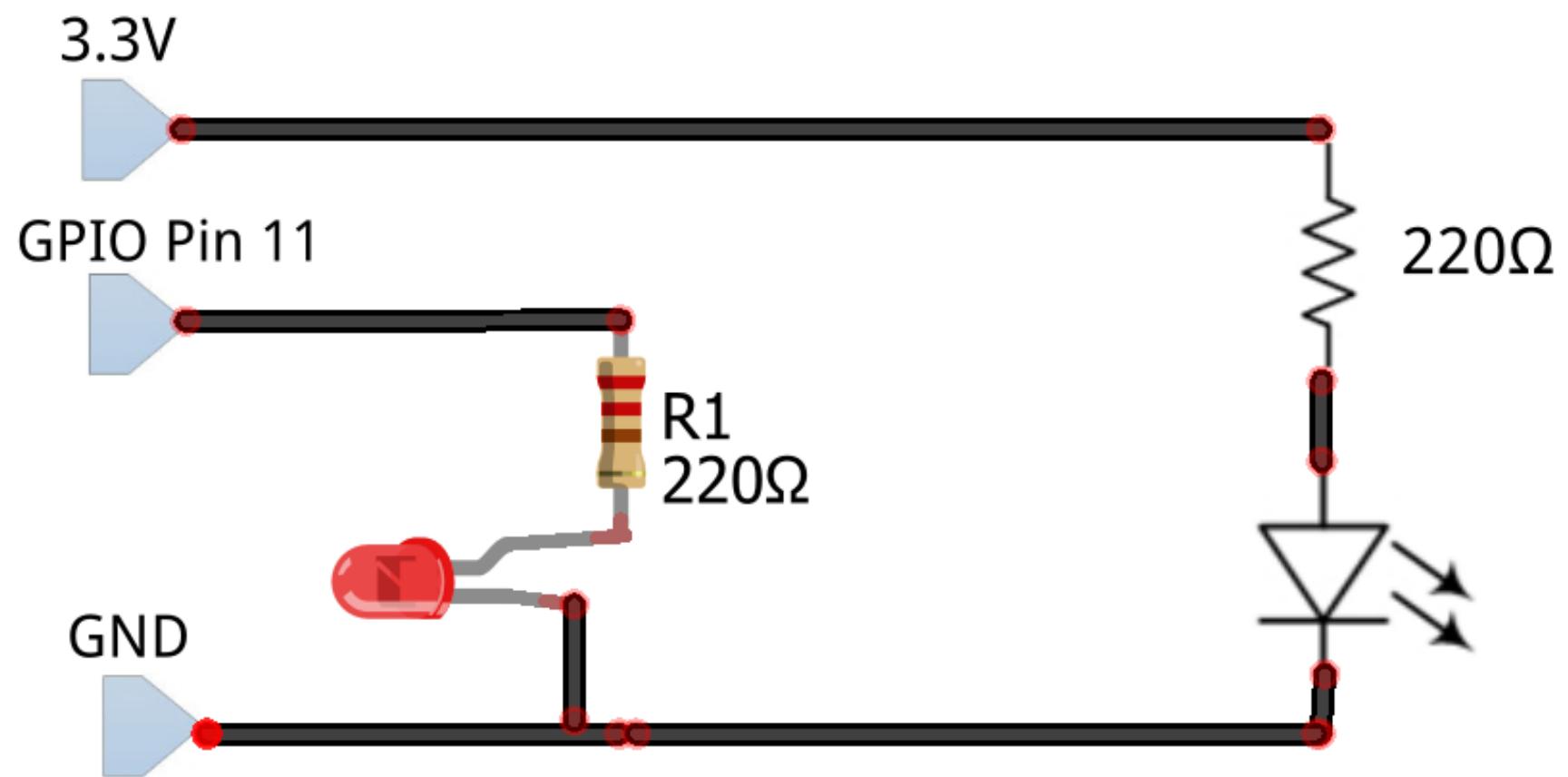




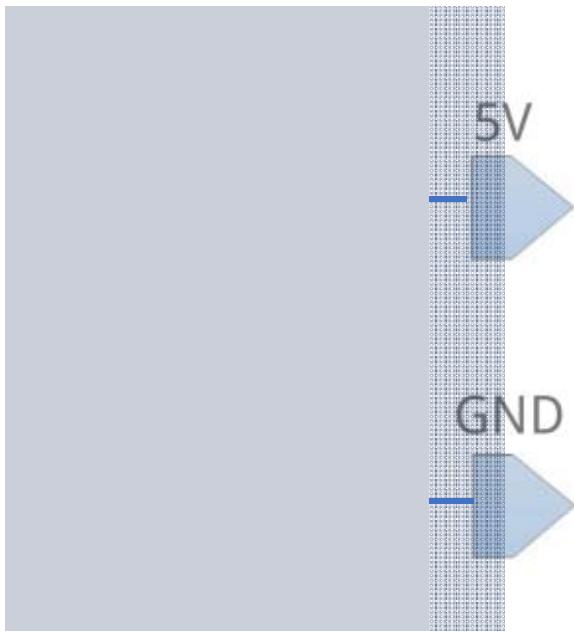


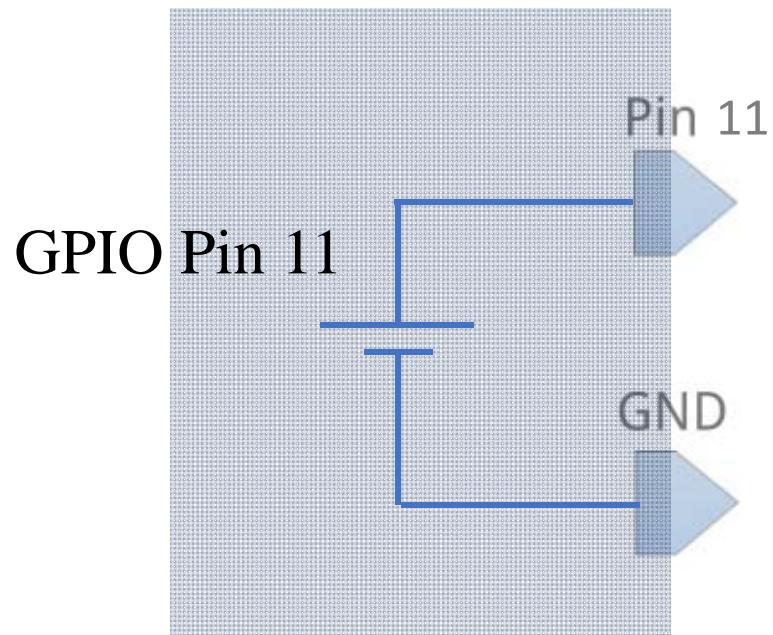


FOUR

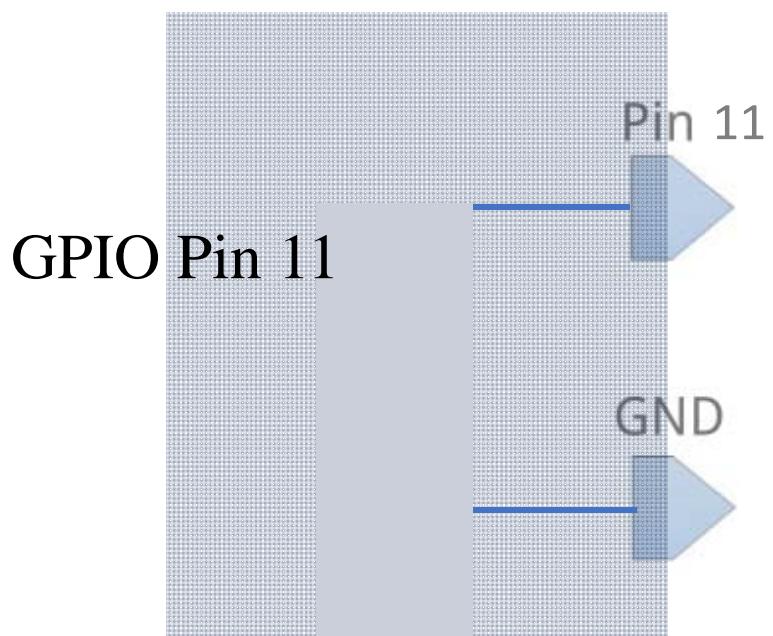


fritzing



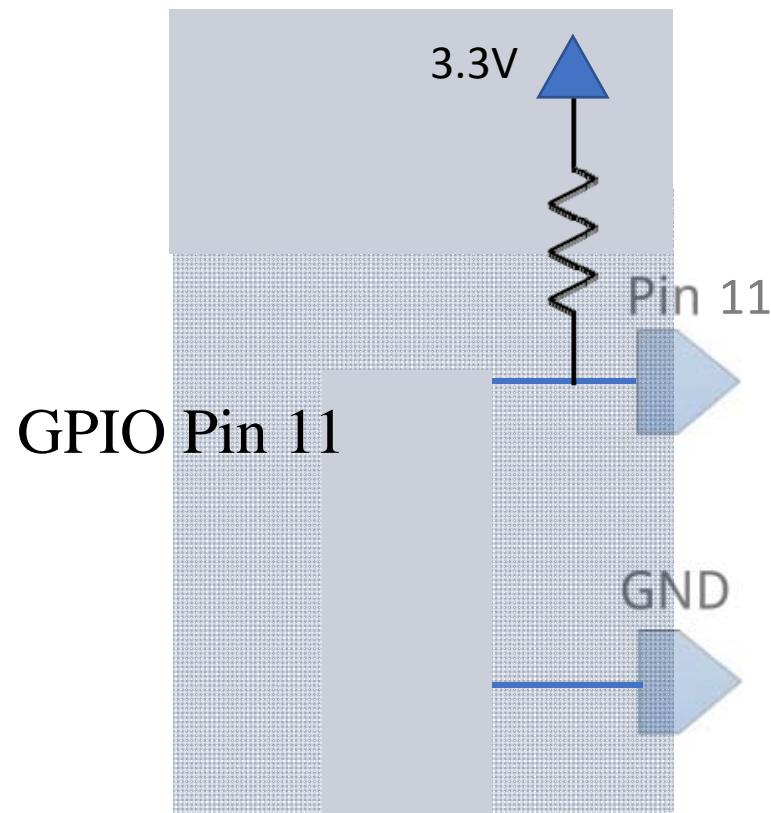


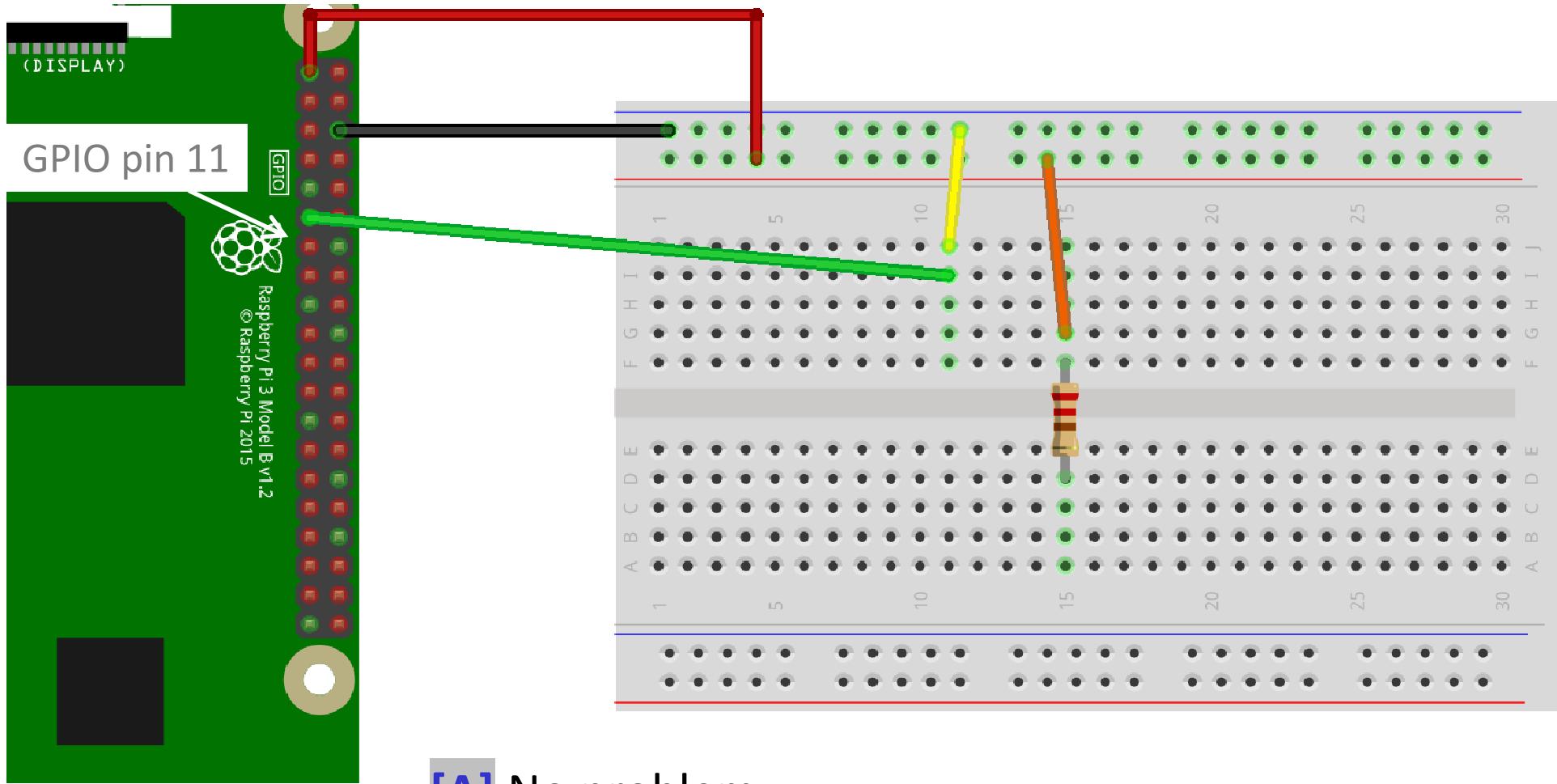
GPIO configured as OUTPUT



GPIO configured as INPUT

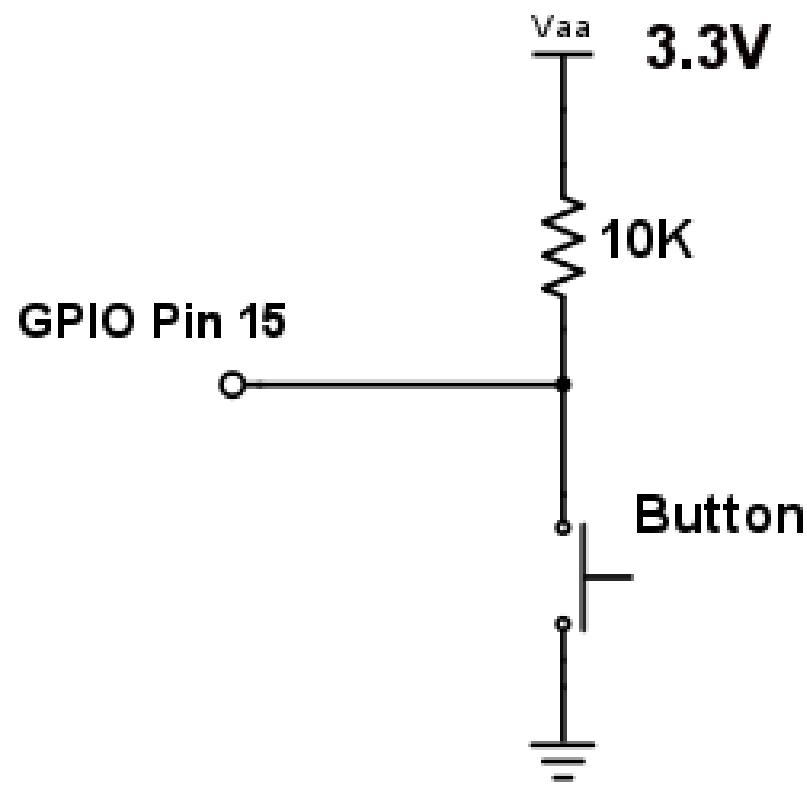
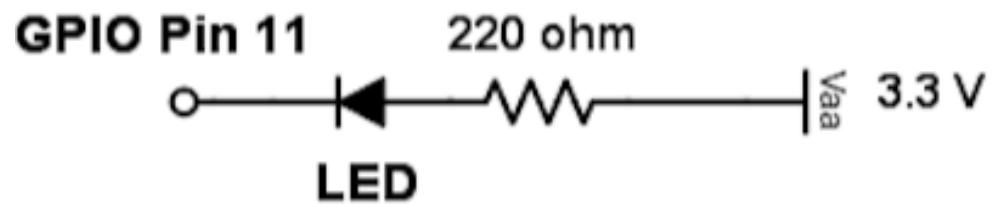
GPIO configured as INPUT with internal PULLUP





The way the circuit is connected is:

- [A] No problem
  - [B] A bad idea if Pin 11 is configured as an output
  - [C] A bad idea if Pin 11 is configured as an input
  - [D] A bad idea regardless of how Pin 11 is configured
  - [E] I don't know



```

import RPi.GPIO as GPIO
import time

LedPin = 11

def setup():
    GPIO.setmode(GPIO.BOARD)          # Numbers GPIOs by physical location
    GPIO.setup(LedPin, GPIO.OUT)        # Set LedPin's mode is output
    GPIO.output(LedPin, GPIO.HIGH)      # Set LedPin high (+3.3V) to turn off led

def loop():
    while True:
        GPIO.output(LedPin, GPIO.LOW)    # led on
        time.sleep(0.5)
        GPIO.output(LedPin, GPIO.HIGH)   # led off
        time.sleep(0.5)

def destroy():
    GPIO.output(LedPin, GPIO.HIGH)      # led off
    GPIO.cleanup()                     # Release resource

if __name__ == '__main__':
    setup()
    try:
        loop()
    except KeyboardInterrupt:
        destroy()

```

