WAYLAND GIRLS WHO CODE

Meeting 1
16 October 2018
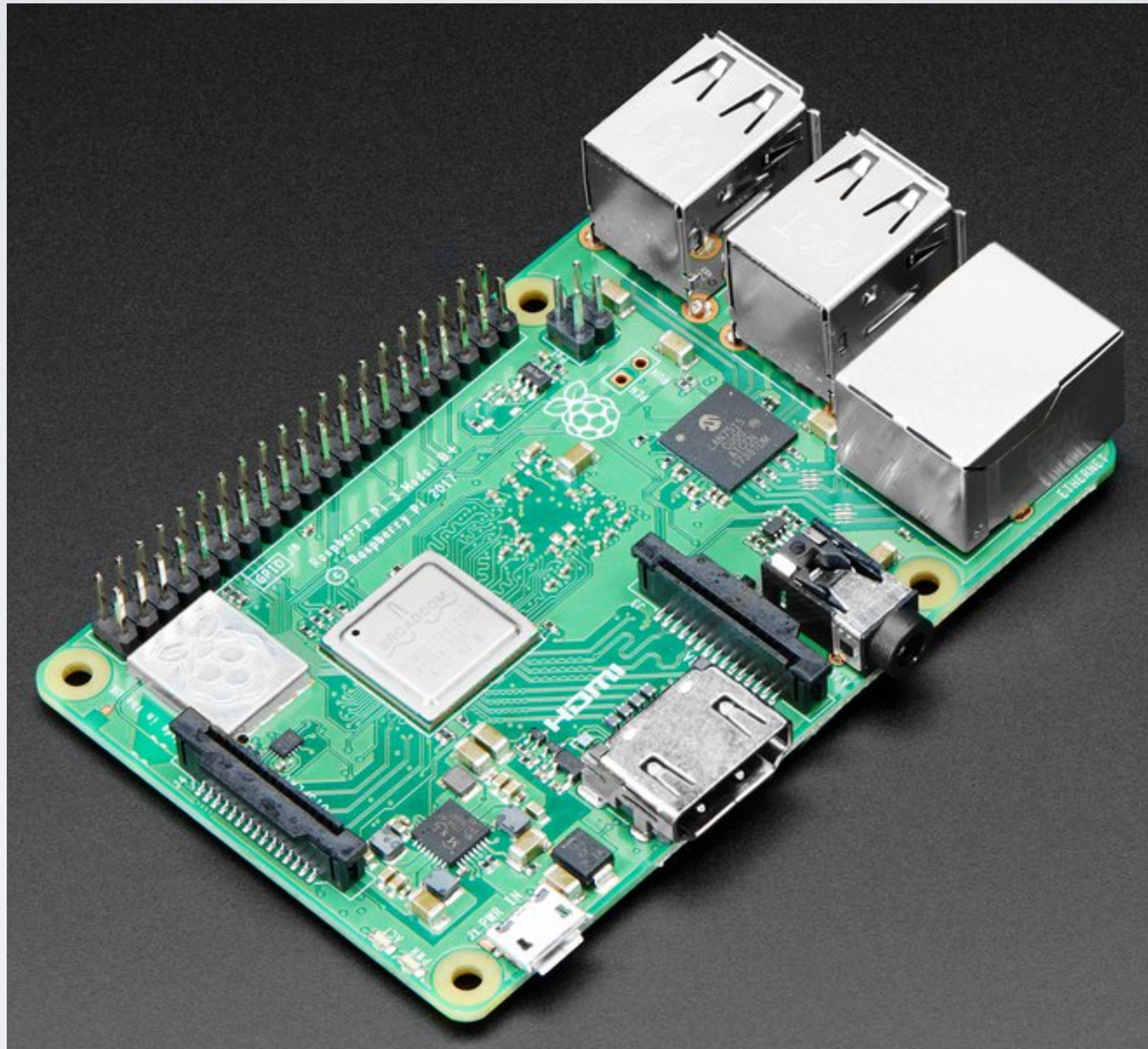
GIRLS WHO LEARN NAMES

GIRLS WHO MAKE TEAMS
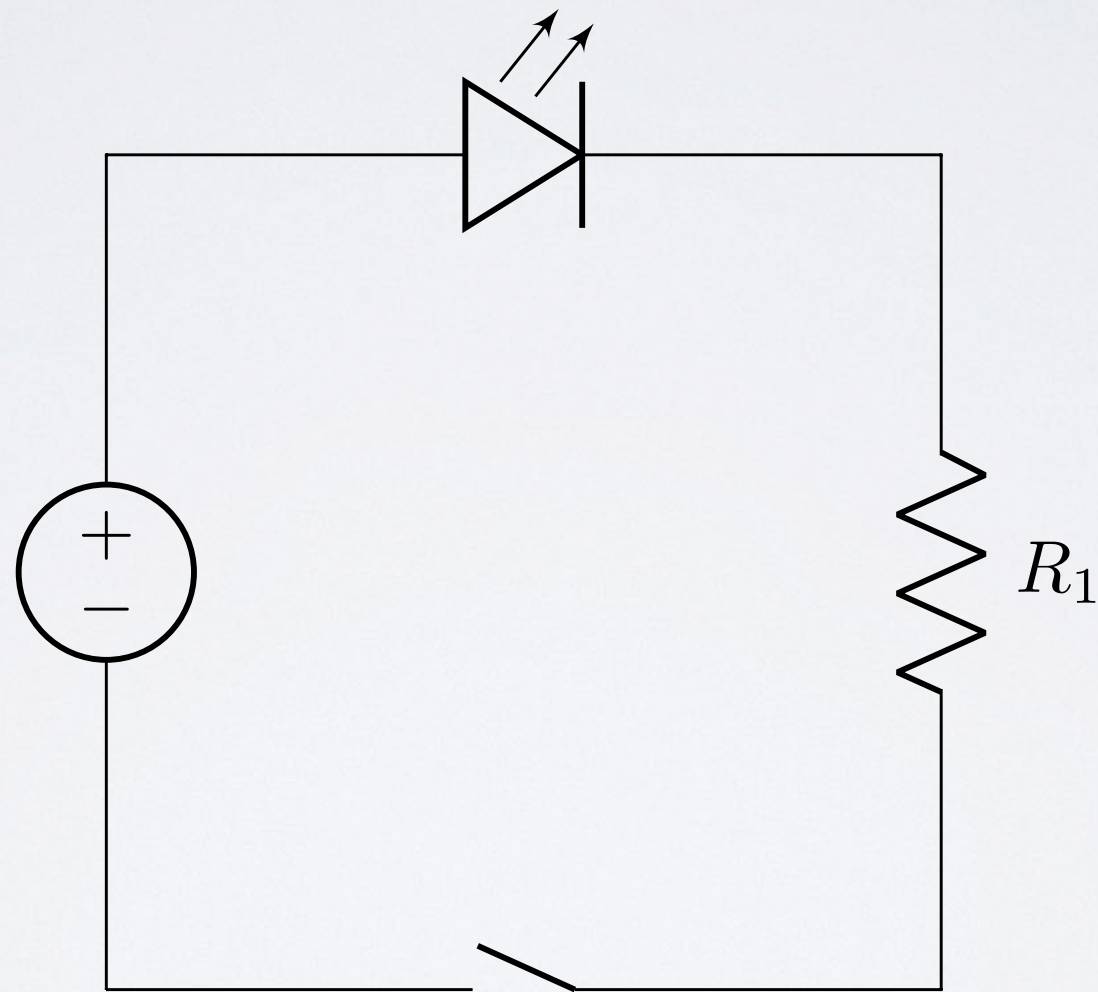
GIRLS WHO GET NOTEBOOKS AND USB KEYS

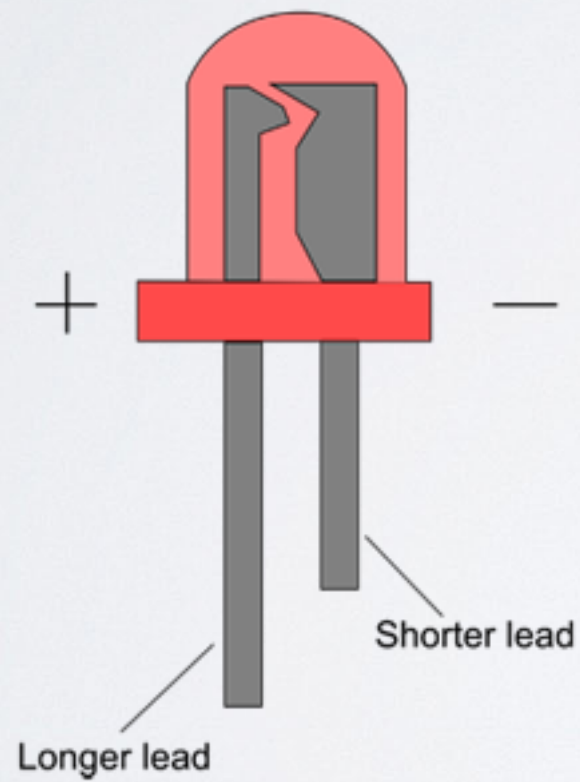# GIRLS WHO GET EQUIPMENT KITS

MEET THE RASPBERRY PI

OUR CIRCUIT

PARTS

Flat edge

+ ANODE — CATHODE

Longer lead Shorter lead

LED

Jumper wires

220 Ω resistor

BREADBOARD

Ground

Power

All holes in this row are connected
All holes in this row are connected

All holes in each column are connected

All holes in each column are connected
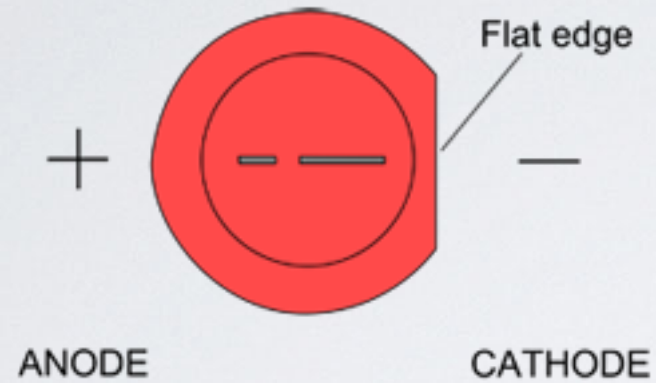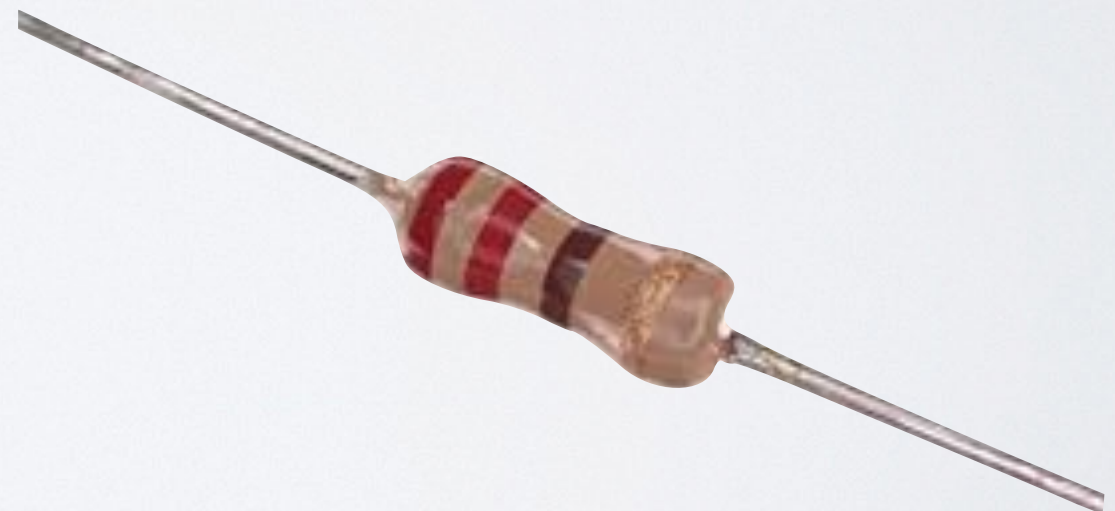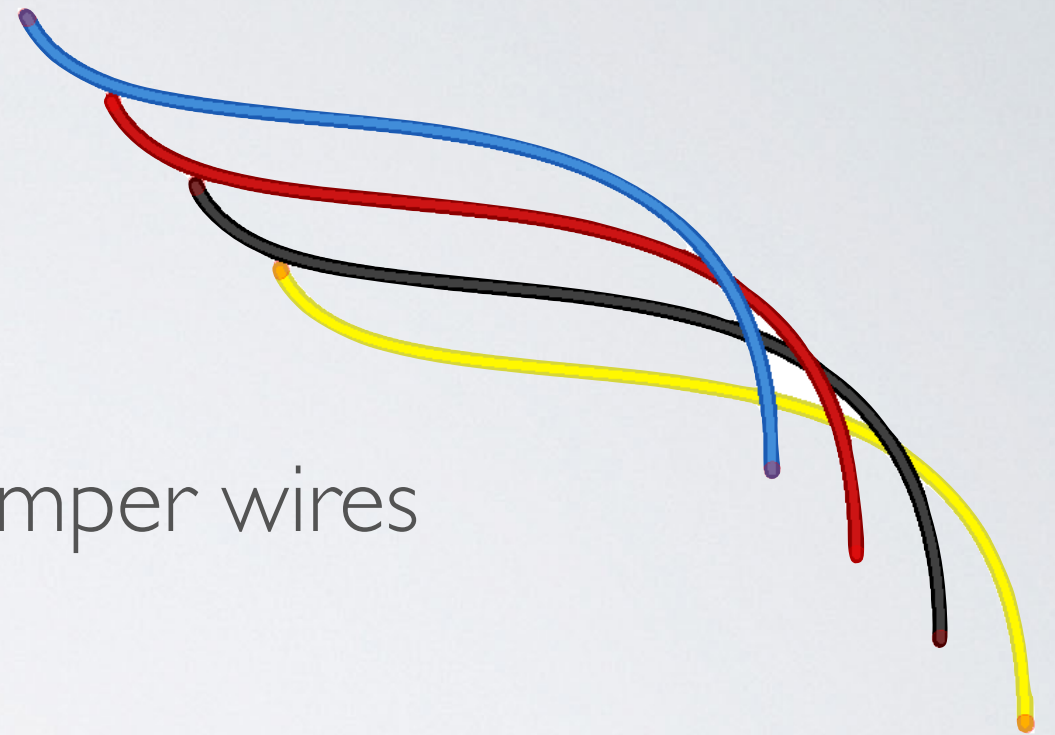
All holes in this row are connected
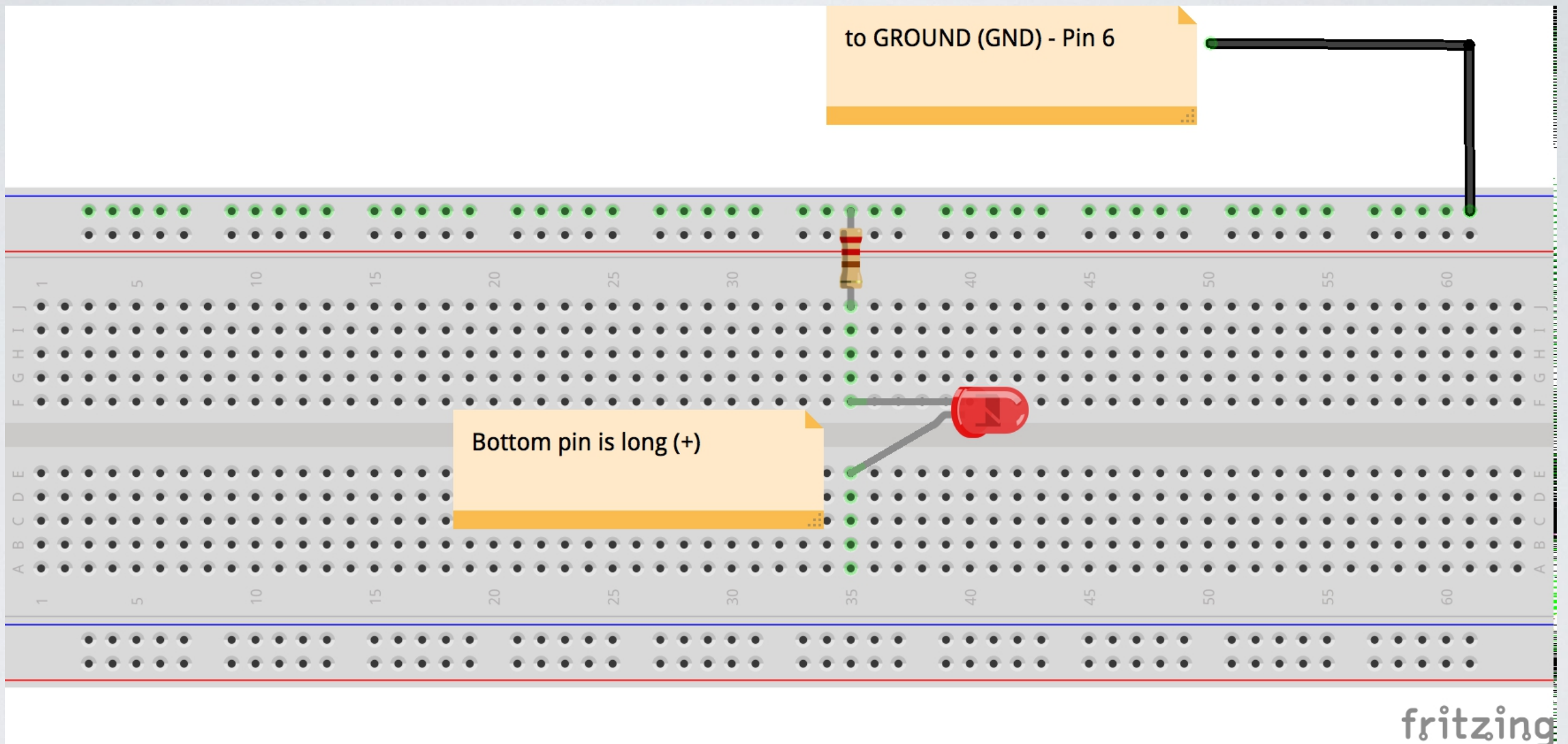All holes in this row are connected
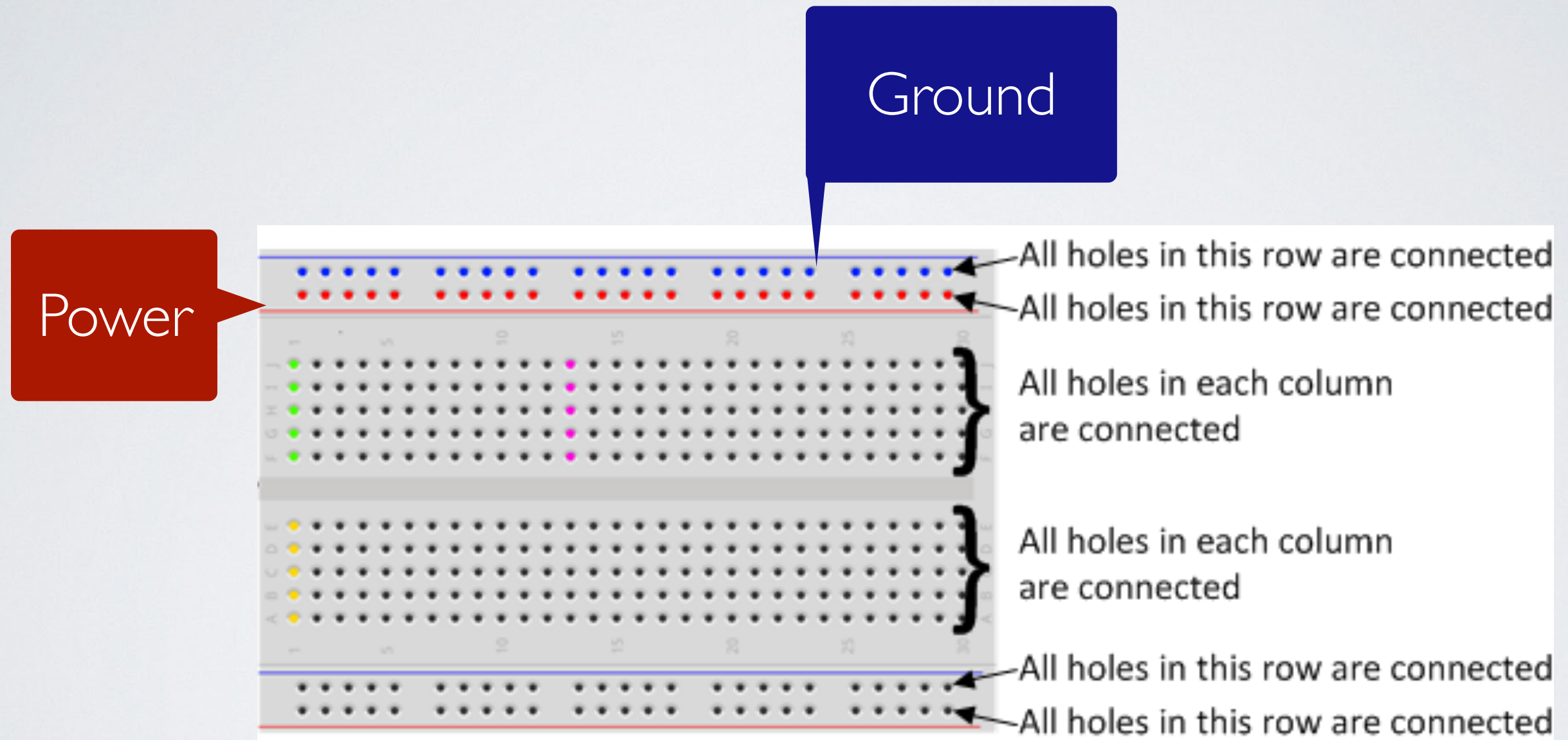
WIRE IT UP!

to GROUND (GND) - Pin 6

Bottom pin is long (+)
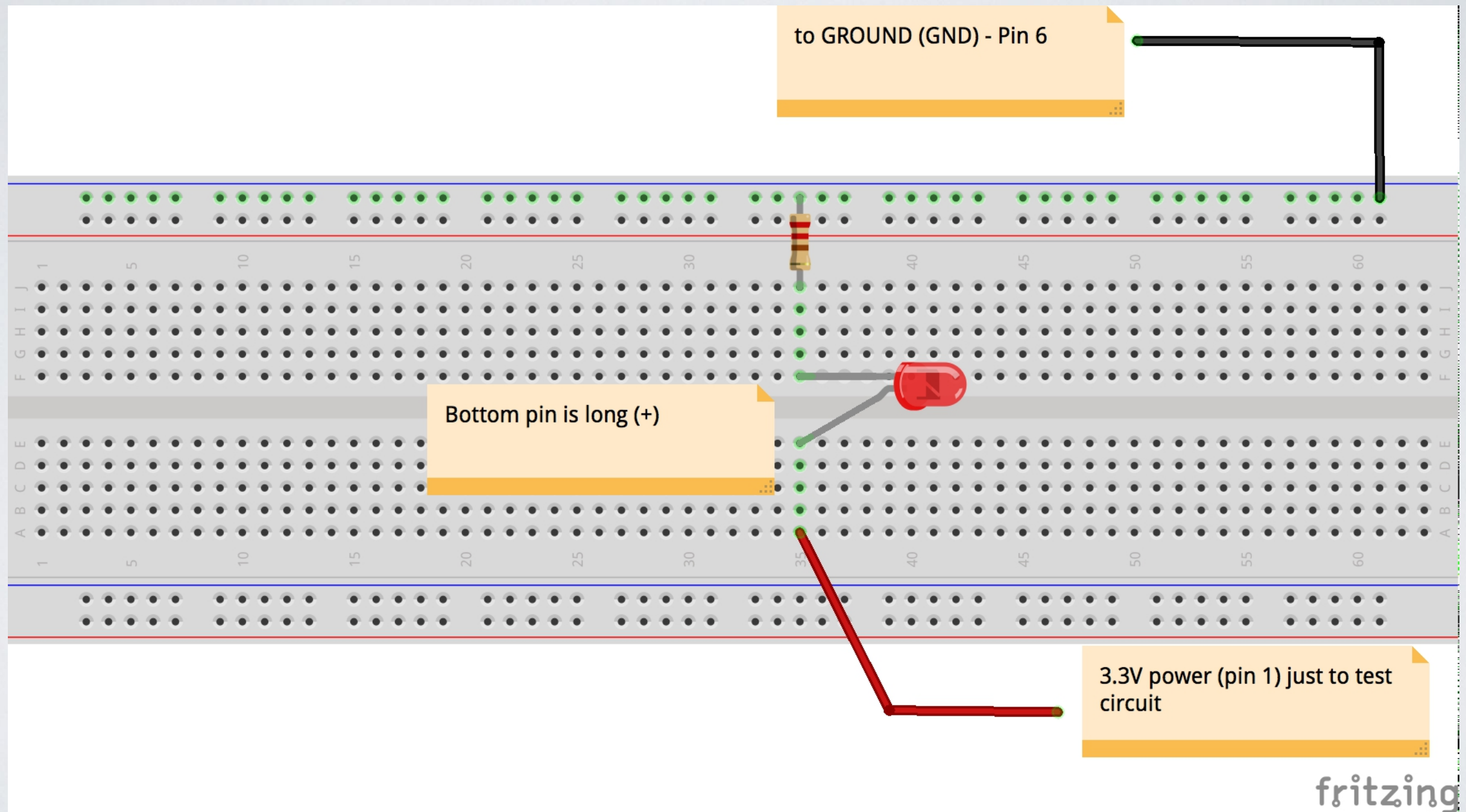
fritzing

GET IT CHECKED

- Have one of the leaders check your wiring

- Then, plug in the power for your Raspberry Pi!

TEST WITH POWER

to GROUND (GND) - Pin 6

Bottom pin is long (+)

3.3V power (pin 1) just to test circuit
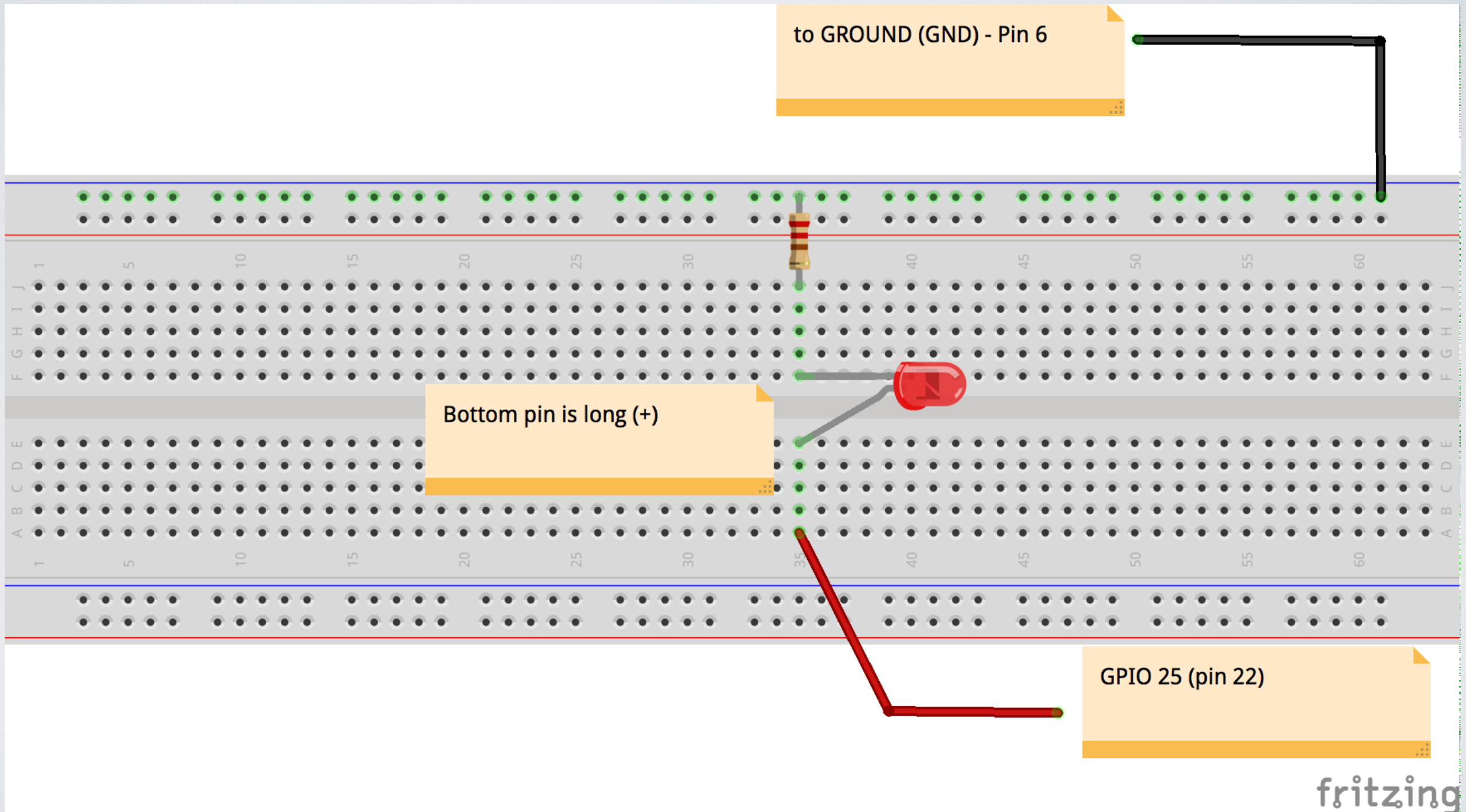
fritzing

CONNECT TO OUTPUT

to GROUND (GND) - Pin 6

Bottom pin is long (+)

GPIO 25 (pin 22)

fritzing

GIRLS WHO LOGIN

GIRLS WHO CODE IN TEAMS

CHECK USB KEYS

- Insert one USB key for your team

- Type this:

  mount > your-first-name.info

  mkdir meeting-1   *(just do this once)*

  cd meeting-1

  thonny &

LET'S CODE!

```python
from gpiozero import LED
from time import sleep

led = LED(25)

delay = 1

while True:
    led.on()
    print('LED set to on')
    sleep(delay)
    led.off()
    print('LED set to off')
    sleep(delay)
```
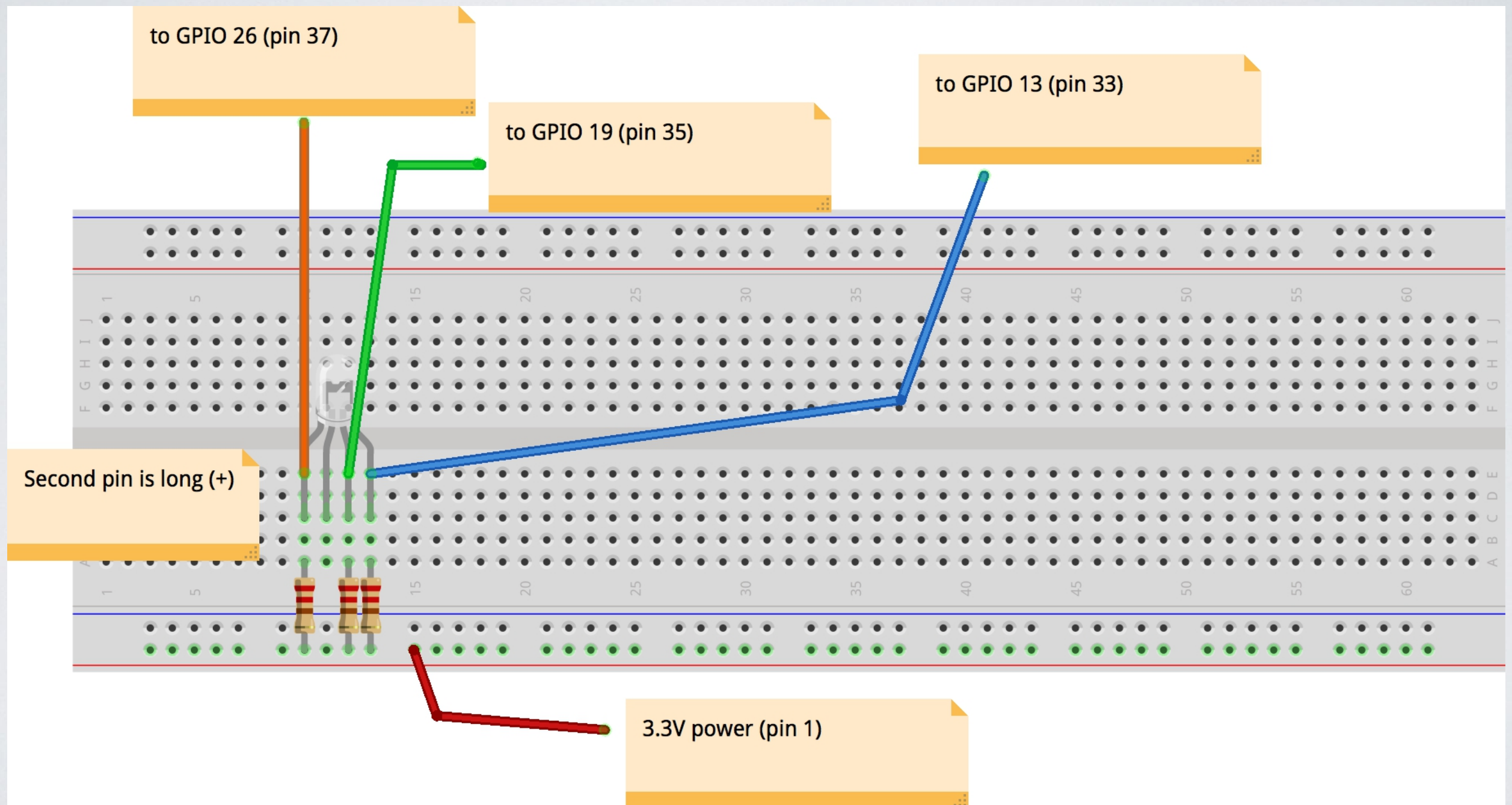
CODING CHALLENGE

- Make all of your LEDs blink in alternating order

WHAT ELSE COULD WE DO?

RGB LED

RGB LED

TEST: to GND (pin 6)

to GND (pin 6)

to GND (pin 6)

Second pin is long (+)

3.3V power (pin 1)

fritzing
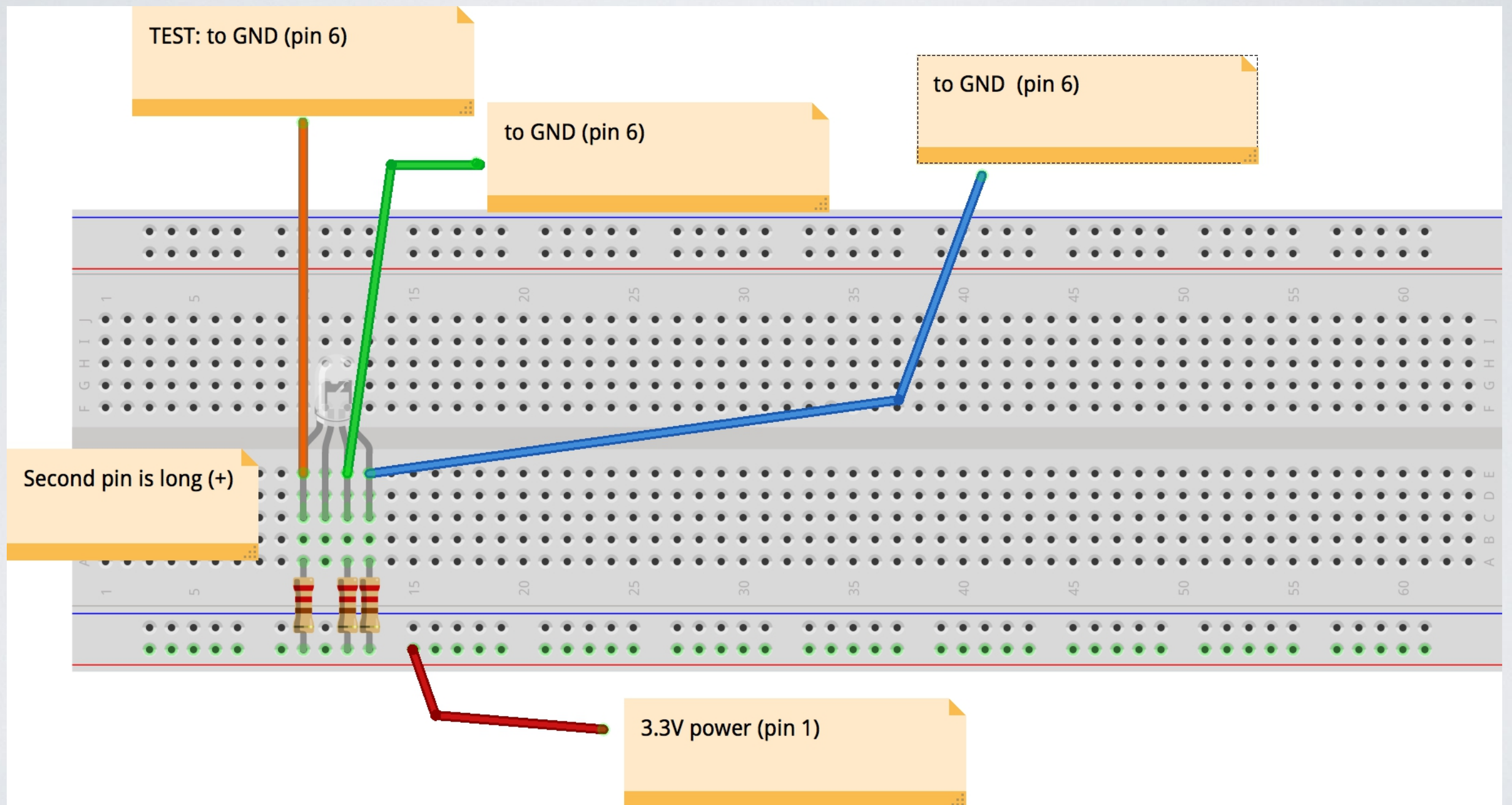
CLEANUP CHECKLIST A

1. mkdir -p /home/pi/*your-name*/meeting-1

2. cp *.py /home/pi/*your-name*/meeting-1

3. sudo shutdown -h now

CLEANUP CHECKLIST B

1. Unplug the USB keys

2. Unplug the Raspberry Pi from power

3. Take the electronic parts off the board and put them back in the little bag

4. Wrap up the power cord and tie it with the twist tie

5. Put the cover back on the Raspberry Pi

6. Put all the kit parts back in the box & close it. Keep your USB key.

CLEANUP CHECKLIST C

1. Write a little bit in your notebook about what you learned, and any questions you have for later

2. We'll talk a little about what you learned

CLEANUP CHECKLIST D

1. Take the closed-up kit, notebook, pencil, and USB key back to the table in the back

2. High five for an awesome first day at Girls Who Code!