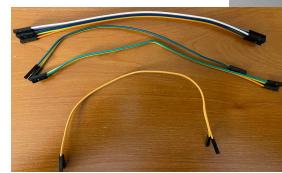
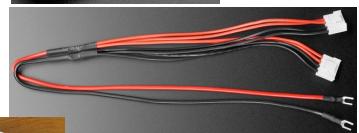
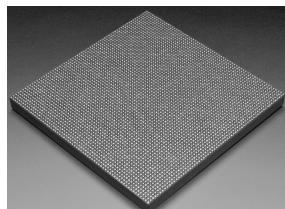


Connecting a LED Matrix Panel to Your Raspi

1

Required Equipment

- LED matrix
 - 64x64 or 64x32
- Power supply cable
 - 5V 10A for 64x64
 - 5V 4A for 64x32
- Screw terminal block
 - This may be included in your LED matrix.
- Power cable
 - This may be included in your LED matrix.
- Jumper wires
 - Plastic-end to plastic-end wires



2

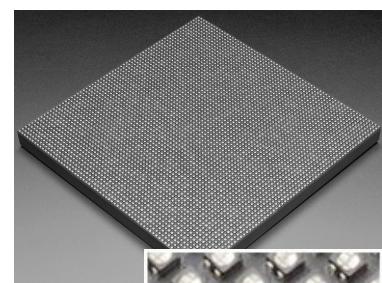
Before You Start...

- Make sure that your Raspi is **turned off**.

3

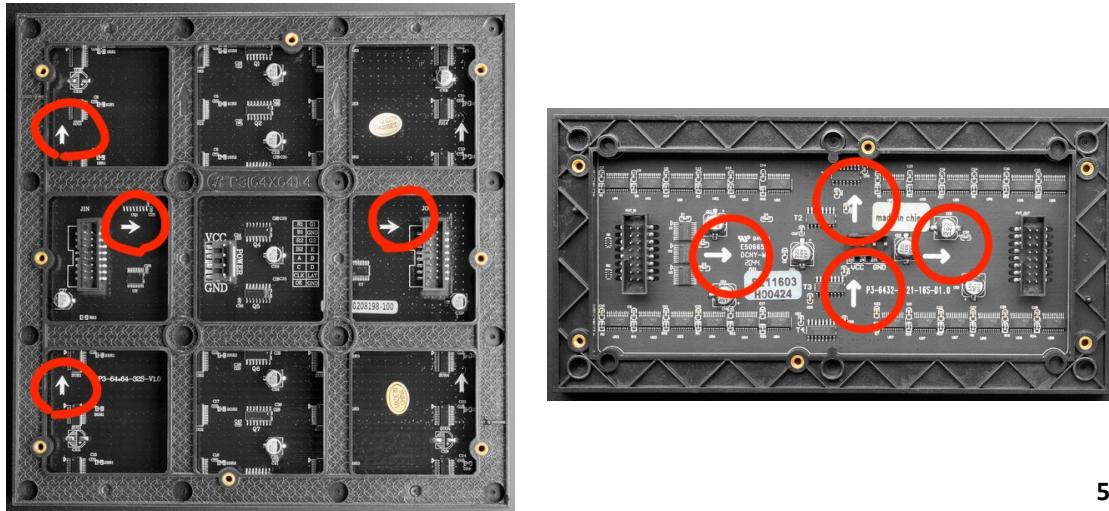
LED Matrix Panel

- Has a grid of LED lights: 64x64, 64x32, etc.
 - $64 \times 64 = 4,096$ LEDs in total
 - $64 \times 32 = 2,048$ LEDs in total
- You will have your Raspi control each of those LEDs:
 - On or off?
 - Which color to emit?
 - How bright?



Backside of LED Matrix

- Flip your LED matrix to see its backside.
- See it this way:
 - Pay attention to **arrows**.

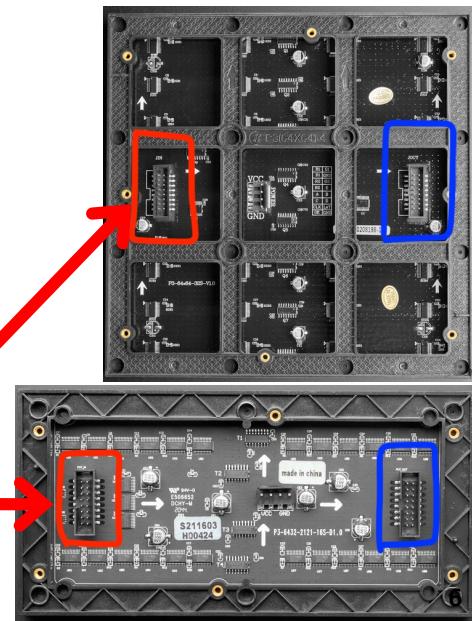


5

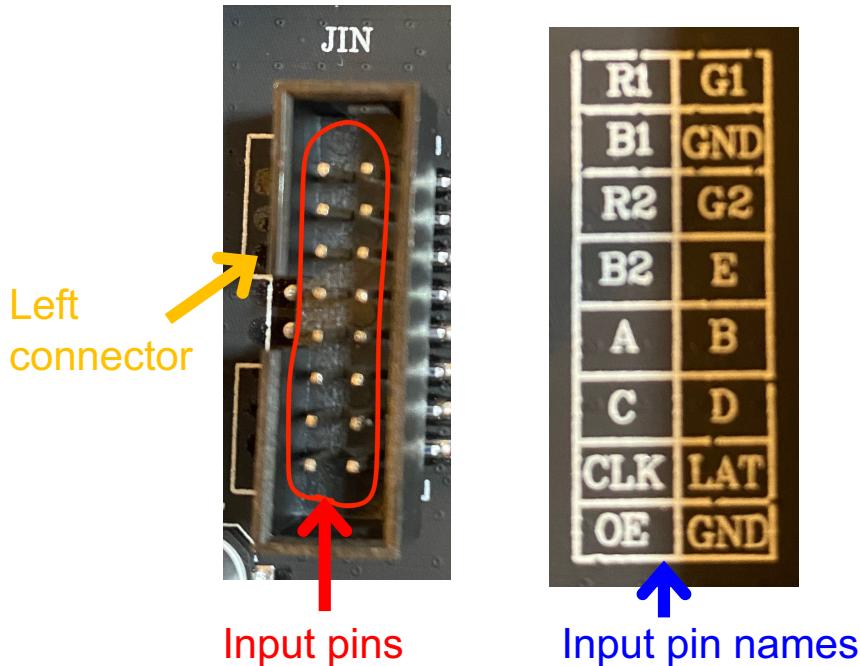
Input Pins on your LED Matrix

- Your LED matrix has **2 connectors**.
 - Each connector has 16 (2x8) pins.
- **Left one:**
 - You will use it.
 - It may be labeled like “JIN”, “IN” or something similar.
- **Right one:**
 - You will NOT use it. (Ignore it.)
 - It may be labeled like “JOUT”, “OUT” or something similar.

You will use this connector.



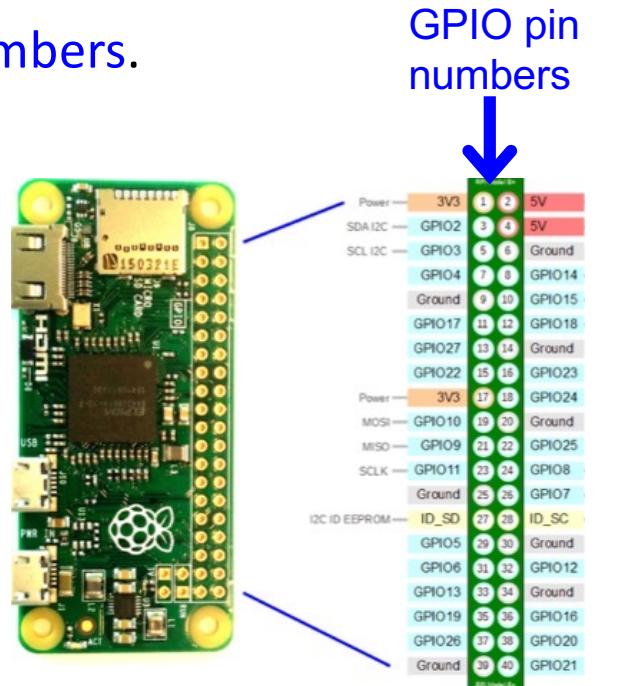
- 16 pins in the left connector are called “**input pins**”.
- Input pins have their own **names**



7

Your Raspi's GPIO pins

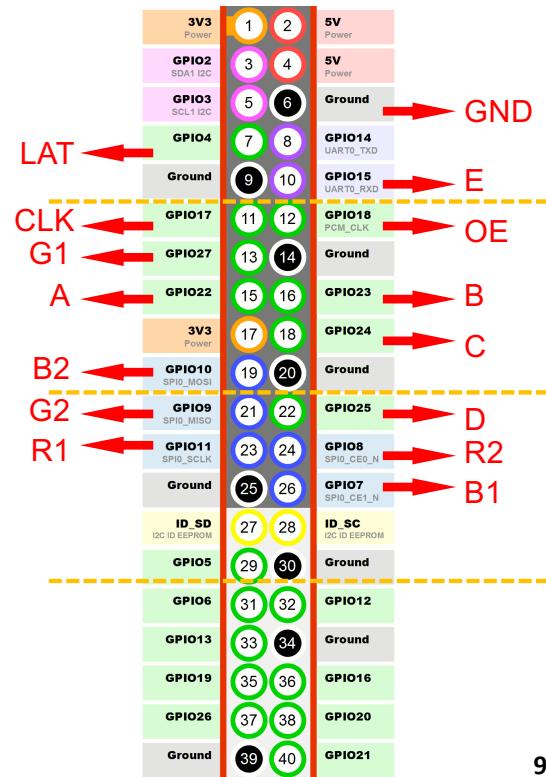
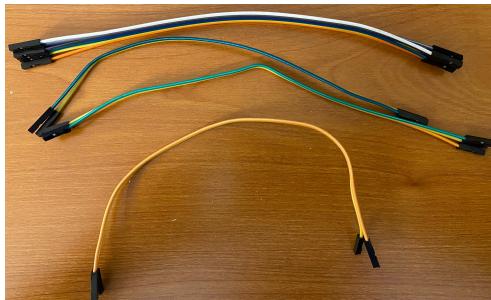
- Your Raspi has 40 GPIO pins.
- They have their own **numbers**.



8

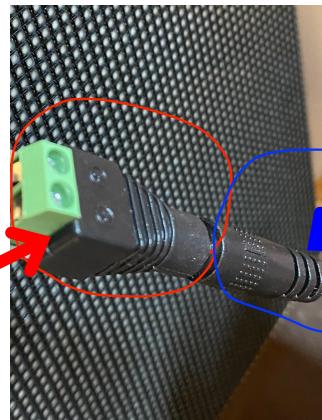
Connect Input Pins and GPIO Pins

- Use jumper wires.
 - Any colors are fine for the wires.
 - Different colors would be useful.



Prepare a Power Supply Cable

- Connect 2 parts of a power supply cable.
- One end goes to a power outlet.
- Insert the other end to a screw terminal block.



Power supply cable

Screw terminal block

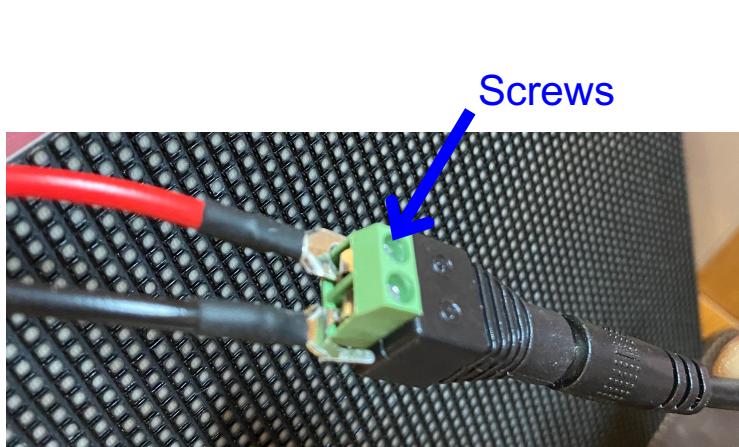
10

- Have a **black-and-red power cable** and connect its **metal end** to your screw terminal block.

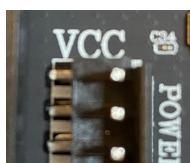
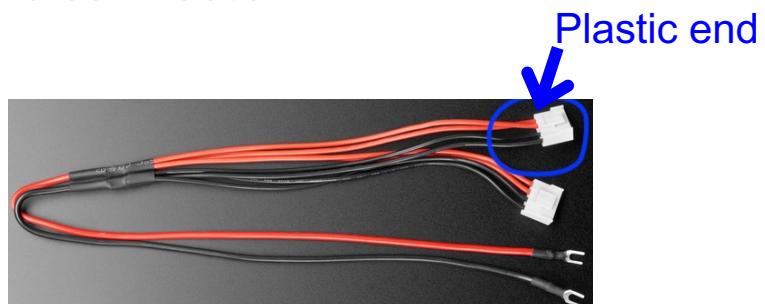


Metal end

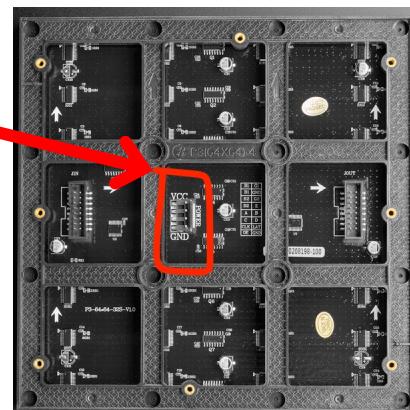
- Loosen the screws, insert the metal end to your screw terminal block, and tighten the screws.



- Connect the **power cable's plastic end** to **your LED matrix's power cable connector**.



Power cable connector



Testing your LED Matrix

- Turn on your Raspi.
- Follow the testing instructions posted on GitHub.