





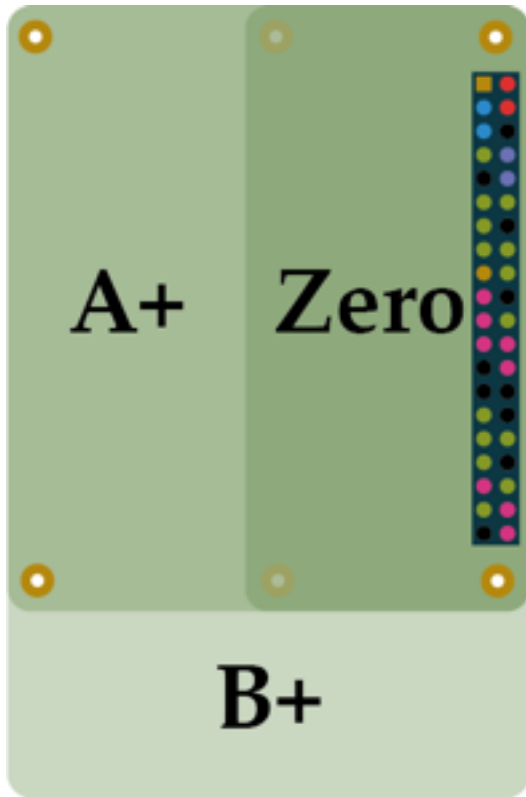


|                     |    |   |   |    |                     |
|---------------------|----|---|---|----|---------------------|
| 3v3 Power           | 1  |  |  | 2  | 5v Power            |
| GPIO 2 (I2C1 SDA)   | 3  |  |  | 4  | 5v Power            |
| GPIO 3 (I2C1 SCL)   | 5  |  |  | 6  | Ground              |
| GPIO 4 (GPCLK0)     | 7  |  |  | 8  | GPIO 14 (UART TX)   |
| Ground              | 9  |  |  | 10 | GPIO 15 (UART RX)   |
| GPIO 17             | 11 |  |  | 12 | GPIO 18 (PCM CLK)   |
| GPIO 27             | 13 |  |  | 14 | Ground              |
| GPIO 22             | 15 |  |  | 16 | GPIO 23             |
| 3v3 Power           | 17 |  |  | 18 | GPIO 24             |
| GPIO 10 (SPI0 MOSI) | 19 |  |  | 20 | Ground              |
| GPIO 9 (SPI0 MISO)  | 21 |  |  | 22 | GPIO 25             |
| GPIO 11 (SPI0 SCLK) | 23 |  |  | 24 | GPIO 8 (SPI0 CE0)   |
| Ground              | 25 |  |  | 26 | GPIO 7 (SPI0 CE1)   |
| GPIO 0 (EEPROM SDA) | 27 |  |  | 28 | GPIO 1 (EEPROM SCL) |
| GPIO 5              | 29 |  |  | 30 | Ground              |
| GPIO 6              | 31 |  |  | 32 | GPIO 12 (PWM0)      |
| GPIO 13 (PWM1)      | 33 |  |  | 34 | Ground              |
| GPIO 19 (PCM FS)    | 35 |  |  | 36 | GPIO 16             |
| GPIO 26             | 37 |  |  | 38 | GPIO 20 (PCM DIN)   |
| Ground              | 39 |  |  | 40 | GPIO 21 (PCM DOUT)  |

## Legend

Orientate your Pi with the GPIO on the right and the HDMI port on the left.

- GPIO (General Purpose IO)
- SPI (Serial Peripheral Interface)
- I<sup>2</sup>C (Inter-integrated Circuit)
- UART (Universal Asynchronous Receiver/Transmitter)
- PCM (Pulse Code Modulation)
- Ground
- 5v (Power)
- 3.3v (Power)



5v Power SDIO JTAG 3v3 Power UART DPI PCM 1-WIRE WiringPi  
 GPCLK Ground I2C PWM SPI  
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# Pinout!

# The Raspberry Pi GPIO pinout guide.

This GPIO Pinout is an interactive reference to the Raspberry Pi GPIO pins, and a guide to the Raspberry Pi's GPIO interfaces. Pinout also includes [dozens of pinouts for Raspberry Pi add-on boards, HATs and pHATs.](#)

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Every \$1 makes all the difference! Thank you.

# pHAT Stack

Pinout has teamed up with Pimoroni to create a [prototype board compatibility tool](#), check it out [here](#)!

## Explore HATs & pHATs

[Check out Pinout's board explorer!](#) Use it to find the pinout for your Raspberry Pi add-on board, or discover new boards. If you manufacture boards, we'd love to add yours too. [You can contribute to Pinout.xyz at GitHub.com.](#)

## What do these numbers mean?

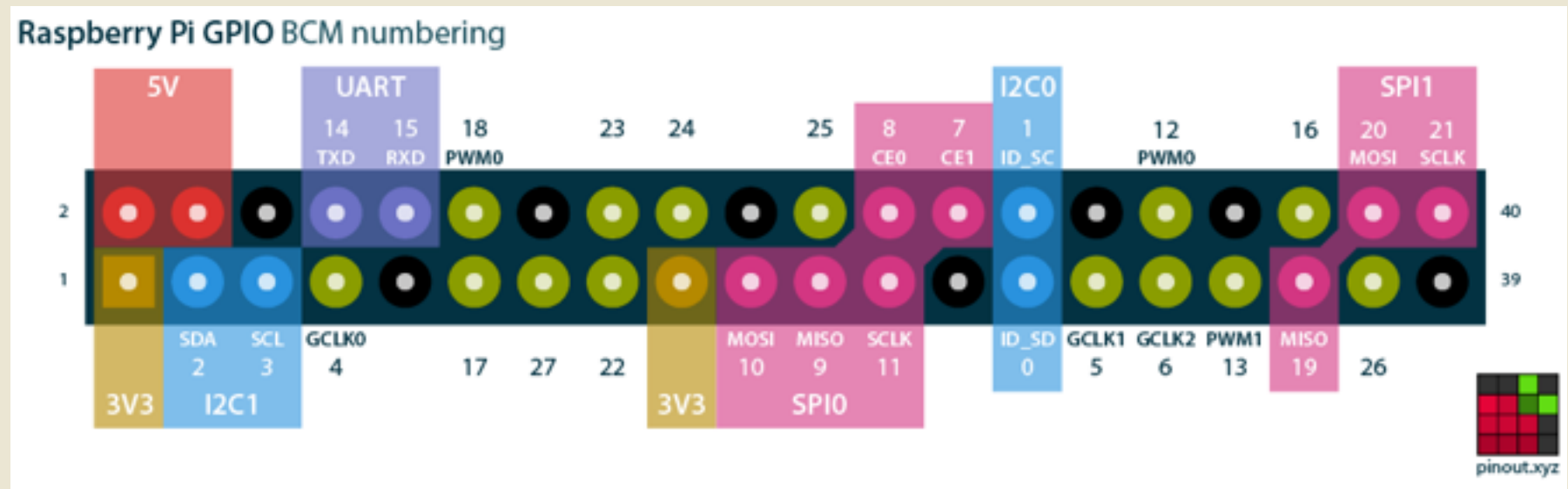
- GPIO - General Purpose Input/Output, aka "BCM" or "Broadcom". These are the big numbers, e.g. "**GPIO 22**". You'll use these with RPi.GPIO and GPIO Zero.
- Physical - or "Board" correspond to the pin's physical location on the header. These are the small numbers next to the header, e.g. "**Physical Pin 15**".
- WiringPi - for Gordon Henderson's Wiring Pi library. These are shown as a tooltip when you mouseover a pin.
- Rev 1 Pi - alternate GPIO/BCM numbers for the original, 26-pin model "A" and "B" Pi.

## What's the orientation of this pinout?

Pinout depicts pin 1 in the top left corner. Pin 1 is the only pin with a square solder pad, which may only be visible from the underside of your Pi. If you orient your Pi such that you are looking at the top with the GPIO on the right and HDMI port(s) on the left, your orientation will match Pinout.

## Graphical Pinout

We've whipped up a simple graphical Raspberry Pi GPIO Pinout. Feel free to print, embed, share or hotlink this image and don't forget to credit us!



Spotted an error, want to add your board's pinout? [Contribute to Pinouyt.xyz at GitHub.com/gadgetoid/Pinouyt.xyz](https://github.com/gadgetoid/Pinouyt.xyz)

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