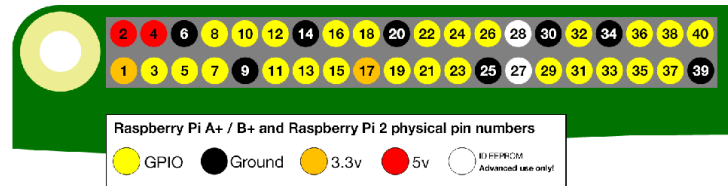
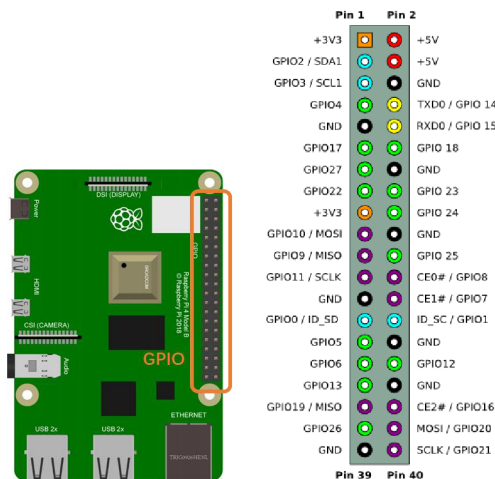


# Q1. What is the difference between Physical pin numbering, BCM GPIO numbering, and WiringPi GPIO numbering?

The GPIO pins have those three ways to reference them. Physical pin numbering refers to them counting across and down from pin one at the left to the right. There are five possible functions according to the next picture:



BCM GPIO numbering uses Broadcom (BCM) processing chips BCM2835, BCM2836 or BCM2837. GPIO pin numbers are assigned by the processing chip manufacturer. The numbers themselves do not make sense. There is no way to remember them, so having a printed reference or a reference board that fits over the pins is necessary. Each pin's functional assignment is defined in the image below:



In WiringPi GPIO numbering, RPi GPIO serial numbers are numbered according to the BCM chip used in RPi. The outermost column, headed WiringPi Pin, refers to the pin number in the wiring Pi code. The middle one, headed BCM GPIO, refers to the pin number of the BCM2835 chip. The innermost column, Name, is the name of the function of the pin.

wiringPi Pin	BCM GPIO	Name	Header	Name	BCM GPIO	wiringPi Pin	
—	—	3.3v	1 2	5v	—	—	For Pi B
8	R1:0/R2:2	SDA	3 4	5v	—	—	
9	R1:1/R2:3	SCL	5 6	0v	—	—	
7	4	GPIO7	7 8	TxD	14	15	
—	—	0v	9 10	RxD	15	16	
0	17	GPIO0	11 12	GPIO1	18	1	
2	R1:21/R2:27	GPIO2	13 14	0v	—	—	
3	22	GPIO3	15 16	GPIO4	23	4	
—	—	3.3v	17 18	GPIO5	24	5	
12	10	MOSI	19 20	0v	—	—	
13	9	MISO	21 22	GPIO6	25	6	
14	11	SCLK	23 24	CE0	8	10	
—	—	0v	25 26	CE1	7	11	
30	0	SDA.0	27 28	SCL.0	1	31	
21	5	GPIO.21	29 30	0v	—	—	
22	6	GPIO.22	31 32	GPIO.26	12	26	
23	13	GPIO.23	33 34	0v	—	—	
24	19	GPIO.24	35 36	GPIO.27	16	27	
25	26	GPIO.25	37 38	GPIO.28	20	28	
—	—	0v	39 40	GPIO.29	21	29	
wiringPi Pin	BCM GPIO	Name	Header	Name	BCM GPIO	wiringPi Pin	

**Q2. What is the pin number used in the code to control GPIO17?**

WiringPi pin 0.

### References

Freenove. (n.d.). *Freenove\_Ultimate\_Starter\_Kit\_for\_Raspberry\_Pi/Tutorial.pdf at master ·*

*Freenove/Freenove\_Ultimate\_Starter\_Kit\_for\_Raspberry\_Pi*. GitHub.

[https://github.com/Freenove/Freenove\\_Ultimate\\_Starter\\_Kit\\_for\\_Raspberry\\_Pi/blob/master/Tutorial.pdf](https://github.com/Freenove/Freenove_Ultimate_Starter_Kit_for_Raspberry_Pi/blob/master/Tutorial.pdf)

Gordons Projects. (2015, November 22). *Raspberry Pi | Wiring | Pins | Gordons Projects*.

Gordons Projects | Projects, Fun and Games From Gordon @ Drogon Dot Net.

<https://projects.drogon.net/raspberry-pi/wiringpi/pins/>