

**!Note:**

The maximum continuous input and output voltage of the Raspberry Pi's GPIO pin is 3.3V. Do not connect it directly with other electronic components, otherwise it will damage the Raspberry Pi.

Step 1: Create and open readgpio.py file

```
nano readgpio.py
```

Step 2: Writing code

```
import wiringpi
```

```
GPIO_Output_Pin = 0
```

```
GPIO_Intput_Pin = 1
```

```
OUTPUT = 1
```

```
INPUT = 0
```

```
HIGH = 1
```

```
LOW = 0
```

```
wiringpi.wiringPiSetup()
```

```
wiringpi.pinMode(GPIO_Output_Pin,OUTPUT)
```

```
wiringpi.pinMode(GPIO_Intput_Pin,INPUT)
```

```
while 1:
```

```
    wiringpi.digitalWrite(GPIO_Output_Pin,HIGH)
```

```
    print('GPIO_Output_Pin OUTPUT =>HIGH')
```

```
    print('GPIO_Intput_Pin INPUT <=',wiringpi.digitalRead(GPIO_Intput_Pin))
```

```
    wiringpi.delay(1000)           #Delay 1000ms
```

```
    print()
```

```
    wiringpi.digitalWrite(GPIO_Output_Pin,LOW)
```

```
    print('GPIO_Output_Pin OUTPUT =>LOW')
```

```
    print('GPIO_Intput_Pin INPUT <=',wiringpi.digitalRead(GPIO_Intput_Pin))
```

```
    wiringpi.delay(1000)           #Delay 1000ms
```

```
    print()
```

After writing, press **Ctrl + X** to exit this file.

The system will prompt you whether you need to save, press **Y** to save and exit.

Step 3: Connect GPIO0 and GPIO1 by Dupont line.



Step 5: Run this code

`python3 readgpio.py`

```
pi@raspberrypi:~/work/example/Python $ python3 readgpio.py
GPIO_Output_Pin OUTPUT =>HIGH
GPIO_Intput_Pin INPUT <= 1

GPIO_Output_Pin OUTPUT =>LOW
GPIO_Intput_Pin INPUT <= 0

GPIO_Output_Pin OUTPUT =>HIGH
GPIO_Intput_Pin INPUT <= 1

GPIO_Output_Pin OUTPUT =>LOW
GPIO_Intput_Pin INPUT <= 0

GPIO_Output_Pin OUTPUT =>HIGH
GPIO_Intput_Pin INPUT <= 1
```

We can see that the InputPin pin changes with the output of OutputPin.

Appendix: GPIO pin reference diagram

```
pi@raspberrypi:~ $ gpio readall
```

-----Pi 4B-----											
BCM	wPi	Name	Mode	V	Physical	V	Mode	Name	wPi	BCM	
		3.3v			1	2		5v			
2	8	SDA.1	IN	1	3	4		5v			
3	9	SCL.1	IN	1	5	6		0v			
4	7	GPIO. 7	IN	1	7	8	1	IN	TxD	15	14
		0v			9	10	1	IN	RxD	16	15
17	0	GPIO. 0	IN	1	11	12	1	OUT	GPIO. 1	1	18
27	2	GPIO. 2	IN	0	13	14		0v			
22	3	GPIO. 3	IN	0	15	16	0	IN	GPIO. 4	4	23
		3.3v			17	18	0	IN	GPIO. 5	5	24
10	12	MOSI	IN	0	19	20		0v			
9	13	MISO	IN	0	21	22	0	IN	GPIO. 6	6	25
11	14	SCLK	IN	0	23	24	1	IN	CE0	10	8
		0v			25	26	1	IN	CE1	11	7
0	30	SDA.0	IN	1	27	28	1	IN	SCL.0	31	1
5	21	GPIO.21	IN	1	29	30		0v			
6	22	GPIO.22	IN	1	31	32	0	IN	GPIO.26	26	12
13	23	GPIO.23	IN	0	33	34		0v			
19	24	GPIO.24	IN	0	35	36	0	IN	GPIO.27	27	16
26	25	GPIO.25	IN	0	37	38	0	IN	GPIO.28	28	20
		0v			39	40	0	IN	GPIO.29	29	21
BCM	wPi	Name	Mode	V	Physical	V	Mode	Name	wPi	BCM	
-----Pi 4B-----											