



## Orange PI PC - How to use GPIO for push buttons : Tutorial

4 4

By Schmurtz, April 25, 2018

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April 25, 2018



Hi, This topic was a initially a question and become a tutorial to use push buttons on orange pi PC.

This tutorial has been made with an [Orange PI PC](#) running on "Armbian\_5.35\_Orangepipc\_Debian\_jessie\_default\_3.4.113.img".

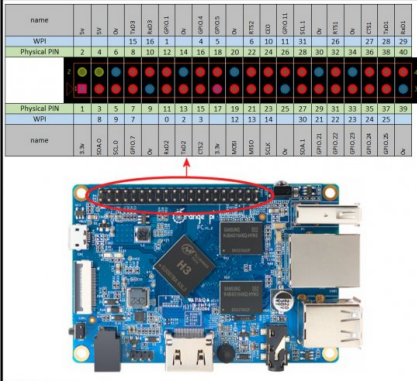
With this example you will be able to launch 3 different scripts for each push button :

`/usr/local/bin/run<Wpi GPIO number>short.sh` -> immediately launched when a button is pressed

`/usr/local/bin/run<Wpi GPIO number>long.sh` -> launched after a long presson

`/usr/local/bin/run<Wpi GPIO number>release.sh` -> launched when a button is released (but not after a long presson)

I've made this image to know easily see the correspondence between WiringOP and physical Orange PI PC connector :



The diagram shows the pinout for the Orange PI PC. It includes a table for the top header (pins 1-40) and a table for the bottom header (pins 1-40). The top header table lists pins 1-40 with their corresponding functions (e.g., WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8, WP9, WP10, WP11, WP12, WP13, WP14, WP15, WP16, WP17, WP18, WP19, WP20, WP21, WP22, WP23, WP24, WP25, WP26, WP27, WP28, WP29, WP30, WP31, WP32, WP33, WP34, WP35, WP36, WP37, WP38, WP39, WP40). The bottom header table lists pins 1-40 with their corresponding functions (e.g., WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8, WP9, WP10, WP11, WP12, WP13, WP14, WP15, WP16, WP17, WP18, WP19, WP20, WP21, WP22, WP23, WP24, WP25, WP26, WP27, WP28, WP29, WP30, WP31, WP32, WP33, WP34, WP35, WP36, WP37, WP38, WP39, WP40).

Orange PI PC  
Pinout for WiringOP  
<https://github.com/zhaolei/WiringOP>

Tutorial :  
<http://orangepi.club/showthread.php?tid=2173>  
or [gnc-github.com](http://gnc-github.com)

GPIO Pinout summary:

Physical PIN	1	3	5	7	8	10	11	12	13	15	16	18	19	21	22	23	24	26	27	28	29	31	32	33	35	36	37	38	40
WP1	8	9	7	15	16	0	1	2	3	4	5	12	13	6	14	10	11	30	31	25	22	26	23	24	27	25	28	29	

Mhhh if you want to modify it, you'll find the [excel source file](#) [here](#).

Sources :

<http://orangepi.club/showthread.php?tid=2173> -> excellent tutorial for beginners !

<https://github.com/zhaolei/WiringOP> -> a modified WiringPi for OrangePi

<http://nix.zeya.org/wiki/>

[разработка средств аппаратного управления для orange pi p c](#) -> a very good example of program in C to use Orange PI GPIO with push buttons

To install and compile the WiringOP library :

```
mkdir downloads
cd downloads
git clone https://github.com/zhaolei/WiringOP.
cd WiringOP/
sudo ./build
```

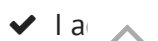
Make a test :

```
gpio readall
```

You should obtain something like that :

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Orange Pi						
BCM	wPi	Name	Mode	V	Physical	
		3.3v			1	2
12	8	SDA.0	ALT5	0	3	4
11	9	SCL.0	ALT5	0	5	6
6	7	GPIO.7	ALT3	0	7	8
		0v			9	10
1	0	RxD2	ALT3	0	11	12
0	2	TxD2	ALT3	1	13	14
3	3	CTS2	IN	1	15	16
		3.3v			17	18
64	12	MOSI	ALT4	0	19	20
65	13	MISO	ALT4	0	21	22
66	14	SCLK	ALT4	0	23	24
		0v			25	26
19	30	SDA.1	ALT5	0	27	28
7	21	GPIO.21	IN	1	29	30
8	22	GPIO.22	IN	1	31	32
9	23	GPIO.23	IN	1	33	34
10	24	GPIO.24	IN	1	35	36
20	25	GPIO.25	ALT5	0	37	38
		0v			39	40
Orange Pi						
BCM	wPi	Name	Mode	V	Physical	

```
nano pushbuttons.c
```

 **Reveal hidden contents**

OK now compile it and run it :

```
gcc -lwiringPi -lwiringPiDev -o pushbuttons pu  
./pushbuttons
```

Press a button and you're done 😊

FYI : To use the native button on the motherboard of the orange PI PC you can use "acpid" to make working for reboot

I hope it will be useful to some of you.



Schmurtz  
Topic author



April 25, 2018



Reserved



Schmurtz  
Topic author



April 30, 2018



I finally turned this topic in a tutorial for the community 😊



jackandjohn



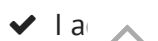
March 10, 2019



Successfully used this on an Orange Pi Zero with

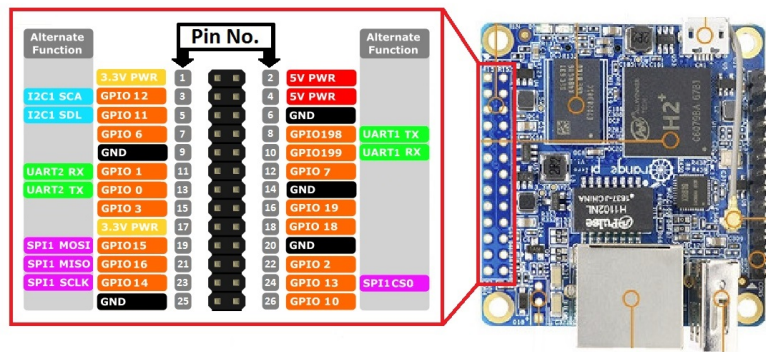
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```
unsigned int nums = 2;
unsigned int WpiPinsSelection[] = {8, 24};
```

Pin "24" corresponds to physical pin 26 as per this pinout guide:



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