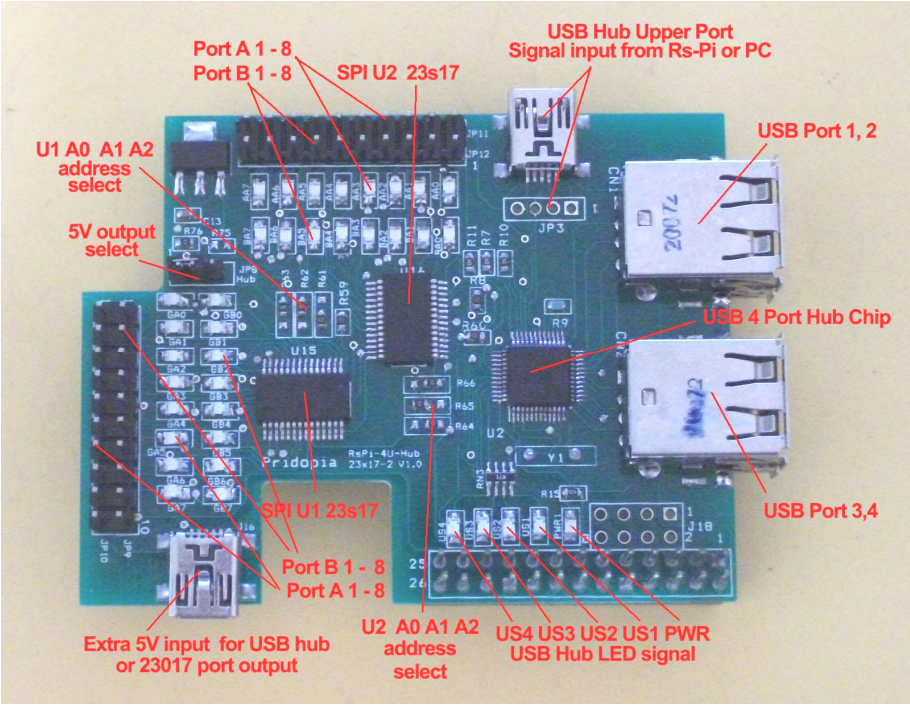
Rs-Pi-4 USB hub & 23s17x2 User Manual



1. J16 Mini USB 5V input
2. J18 Rs-Pi V2 GPIO output
3. JP10 GA0 ~ GA7, GND, Vcc U15 Port A
4. JP9 GB0 ~ GB7, GND,Vcc U15 Port B
5. JP11 AA0 ~ AA7, GND,Vcc U16 Port A
6. JP12 BA0 ~ BA7,GND,Vcc U16 Port B
7 R61,R62,R63 (for U13 Address select A0,A1,A2)
8. R64,R65,R66 (for U14 Address select A0,A1,A2)
9. U15 (000) 23s17 -1 Port A,B
10. U16 (001) 23s17-2 Port A,B
11, JP8 Power input select (J16) for USB hub or GPIO output to PIN 10
12. J18 for RS-Pi V2 GPIO connector (got 4 more GPIO pin)

Enable USB hub function.

* use the Mini USB to USB cable we provide plug in one of the Raspberry Pi USB port to this 4 Port USB hub board Mini USB connector upper of the JP3

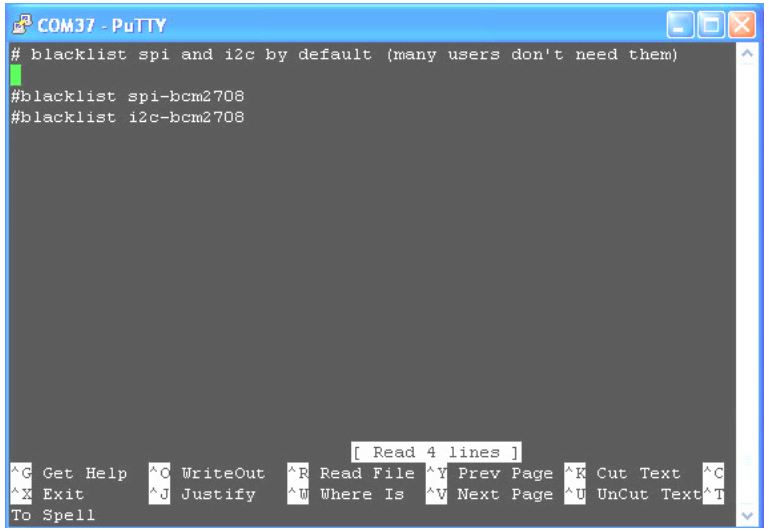
Always enabling SPI

To always enable the SPI driver: After logging in,
edit /etc/modprobe.d/raspi-blacklist.conf

sudo nano etc/modprobe.d/raspi-blacklist.conf

Insert a **#** at the start of the line containing blacklist spi-bcm2708

#blacklist spi-bcm2708



https://pypi.python.org/pypi/RPi.GPIO GPIO library

GPIO library - RPi.GPIO-0.5.2a.tar.gz

Install python , library and run the test program

sudo apt-get install python-dev

wget http://www.pridopia.co.uk/pi-pgm/RPi.GPIO-0.5.2a.tar.gz
gunzip RPi.GPIO-0.5.2a.tar.gz
tar –xvf RPi.GPIO-0.5.2a.tar
cd RPi.GPIO-0.5.2a
sudo python setup.py install
sudo python n23s17-cs0.py

A0, A1, A2 address * right side GND low - 0 * left side Vcc High - 1

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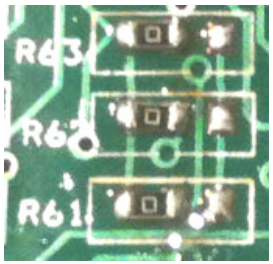

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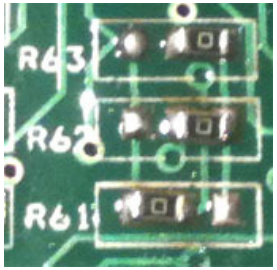
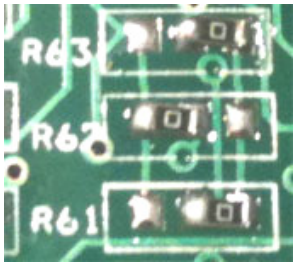


010 -



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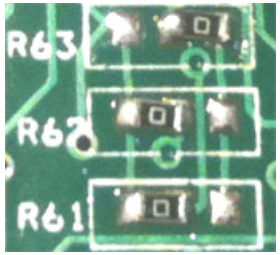

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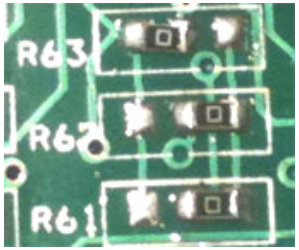

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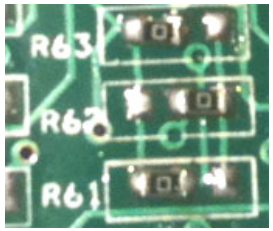

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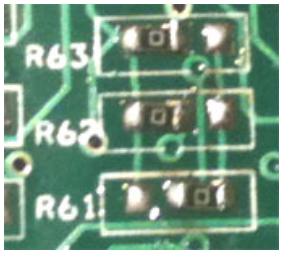

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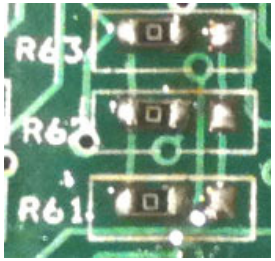
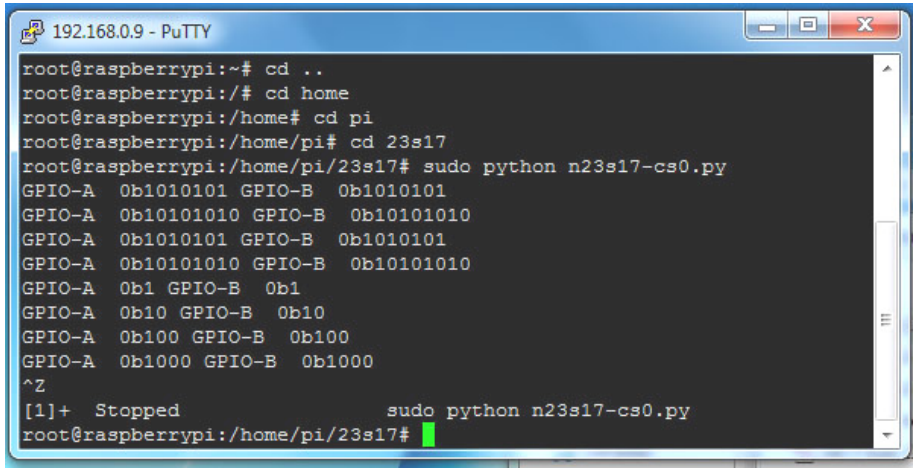


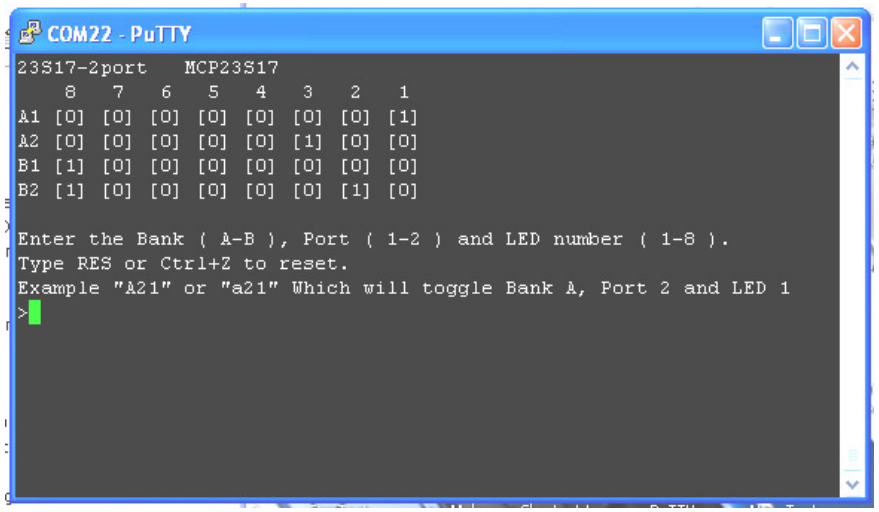
Download test program on our web site

1. n23s17-cs0.py
2. 23s17-2port-s-v103.py

http://www.pridopia.co.uk/pi-23s17-2-lp.html



n23s17-cs0.py demo



our new output test program 23s17-2port-s-v103.py display all 32 GPIO status

New Pridopia scratch interface software Pi_Scratch you can download from our web site

http://www.pridopia.co.uk/rs-pi-set-scratch.html

```
U1 to U2 spi 23s17  address 40,42

40 --> 1  42 --> 2  44 --> 3  46  --> 44
48 --> 5  4a --> 6  4c --> 7  4e  --> 8

Command "sp"+ "address(1-8)" + "a" +"bit(1 to 8)" Port A
Command "sp"+ "address(1-8)" + "b" +"bit(1 to 8)" Port B
Command "bits"+"address(1-8)" + "a" +"bit(8 to 1)"Port A
Command "bits"+"address(1-8)" + "b" +"bit(8 to 1)"Port B

  sp2b7 -->  spi address 2 Port B bit 7 ON/OFF
  sp3b4 -->  spi address 3 Port B bit 4 ON/OFF
  bits2b01010101 -->  address 2 port B from bit 8 to 11
                      output  --> 01010101
   bits2a01010101 -->  address 2 port A from bit 8 to 1
                      output  --> 01010101
  bits2aoff  --> address 2 Port A all OFF/clear
  bits2aclr  --> address 2 Port A all OFF/clear
```