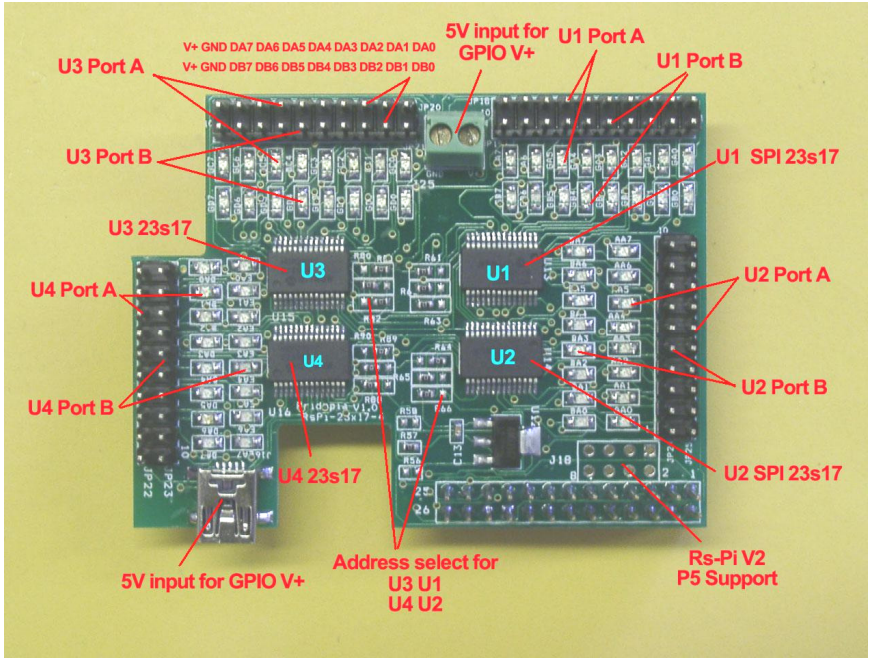
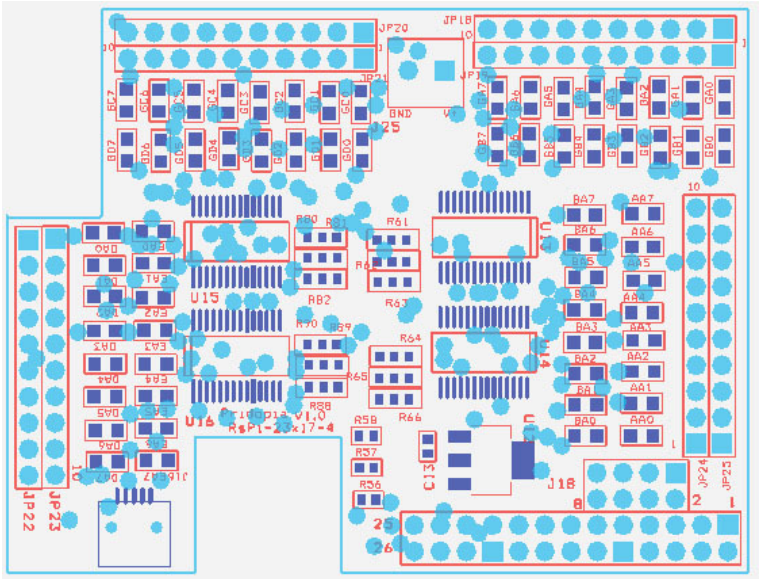
Rs-Pi-23s17-4 SPI 64 GPIO User Manual

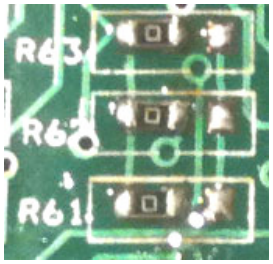




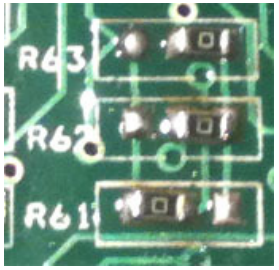
1. J16 Mini USB 5V input for GPIO pin10 V+
2. J18 Rs-Pi V2 GPIO output
3. JP18 GA0 ~ GA7 U13 Port A JP19 GB0 ~ GB7 U13 Port B
4. JP25 AA0 ~ AA7 U14 Port A JP24 BA0 ~ BA7 U14 Port B
5. JP20 GC0 ~ GC7 U15 Port A JP21 GD0 ~ GD7 U15 Port B
6. JP22 DA0 ~ DA7 U16 Port A JP23 EA0 ~ EA7 U16 Port B
7 R61,R62,R63 (for U13 Address select A0,A1,A2)
8. R64,R65,R66 (for U14 Address select A0,A1,A2)
9 R80, R81,R82 (for U15 Address select A0,A1,A2)
10. R88,R89,R90 (for U16 Address select A0,A1,A2)
11. U13 (000) 23s17 -1 Port A,B U14 (001) 23s17-2 Port A,B
12. U15 (010) 23s17 -3 Port A,B U16 (011) 23s17-4 Port A,B

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

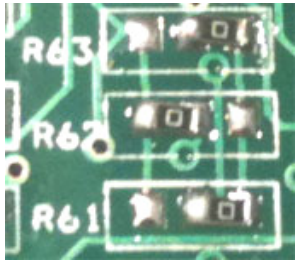
000 -



001 -



010 -



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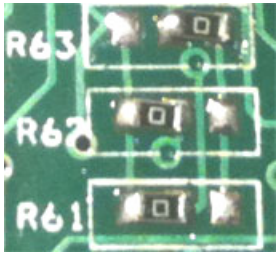

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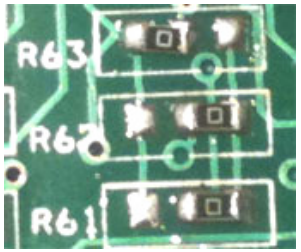

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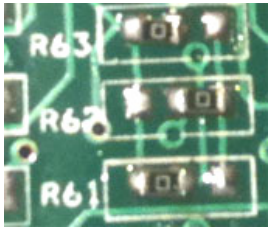
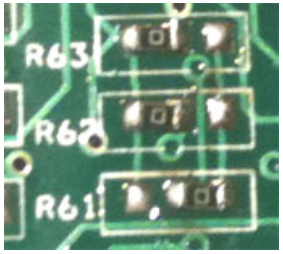


110



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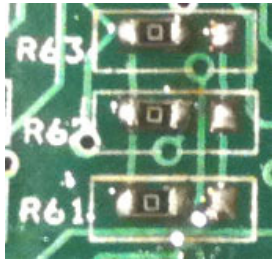


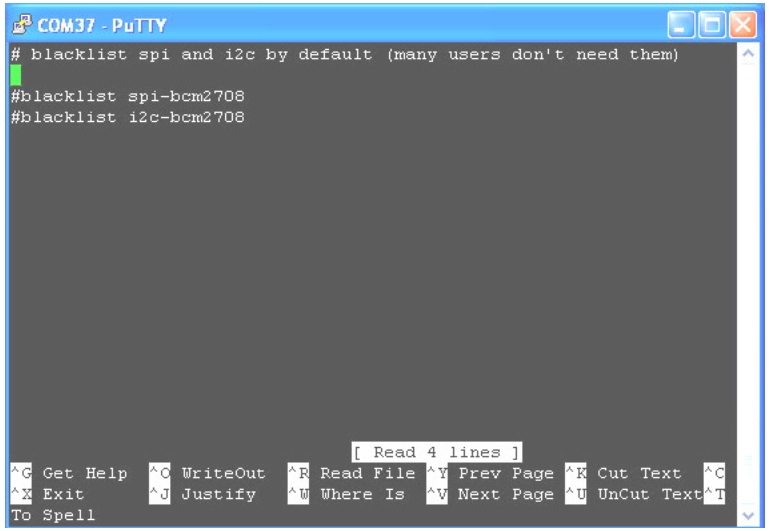
Always enabling SPI

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



Download test program from our web site

1. n23s17-cs0.py
2. 23s17-4port-v2.py

http://www.pridopia.co.uk/pi-23s17-4-lp.html

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

GPIO library - RPi.GPIO-0.5.3a.tar.gz

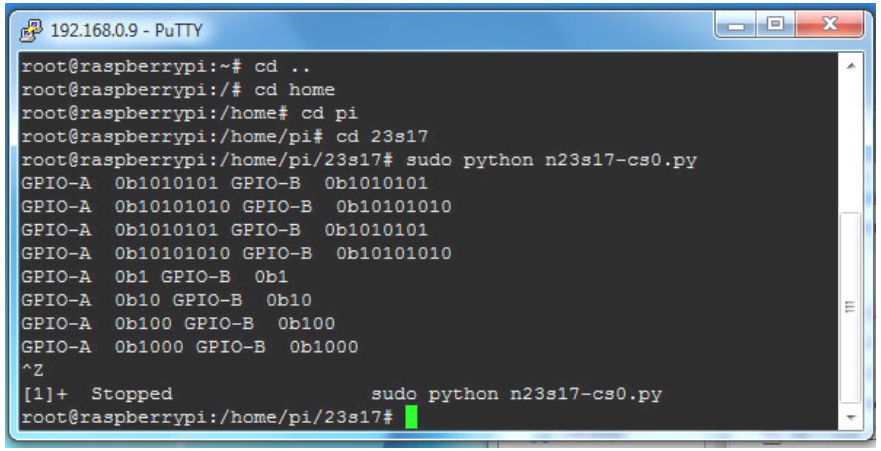
Install python , library and run the test program

sudo apt-get install python-dev

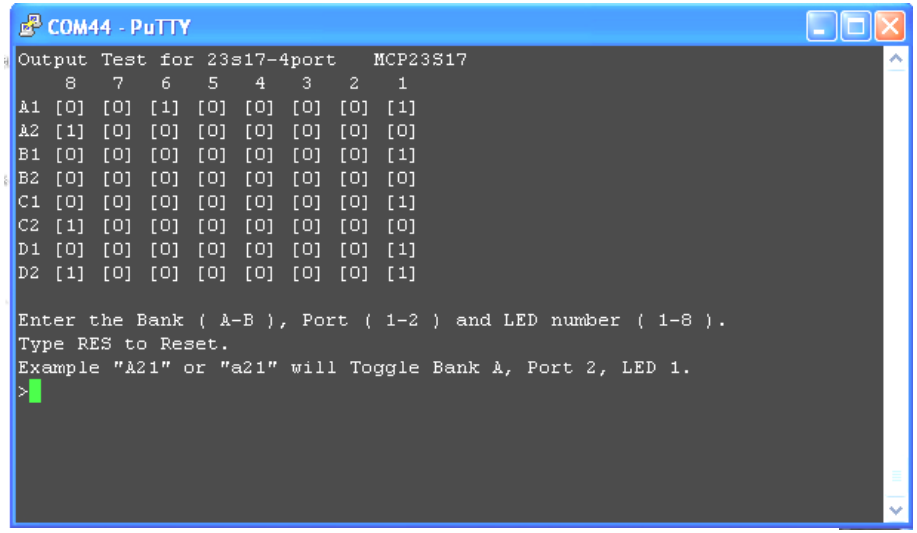
wget http://www.pridopia.co.uk/pi-pgm/RPi.GPIO-0.5.3a.tar.gz

gunzip RPi.GPIO-0.5.3a.tar.gz
tar –xvf RPi.GPIO-0.5.3a.tar
cd RPi.GPIO-0.5.3a
sudo python setup.py install

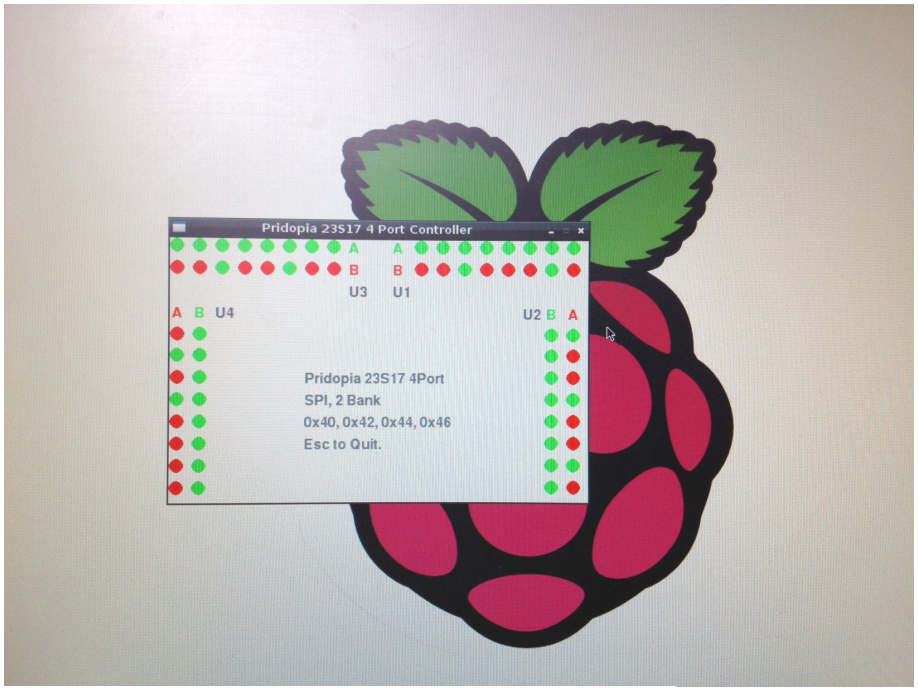
sudo python xxx.py (xxx.py it's name of test program)



n23s17-cs0.py 64 GPIO output demo



new test program 23s17-4port-s-v103.py demo



new GUI interface output software 23s17-4port-GUI.py demo

Download test program from our web site

http://www.pridopia.co.uk/pi-23s17-4-lp.html

23s17-cs0.py 23s17-cs1.py

23s17-4port-v3.py 23s17-4port-s-v103.py

23s17-4port-GUI.py red.png green.png download these three files

New Pridopia scratch interface software you can download from our web site
http://www.pridopia.co.uk/rs-pi-set-scratch.html

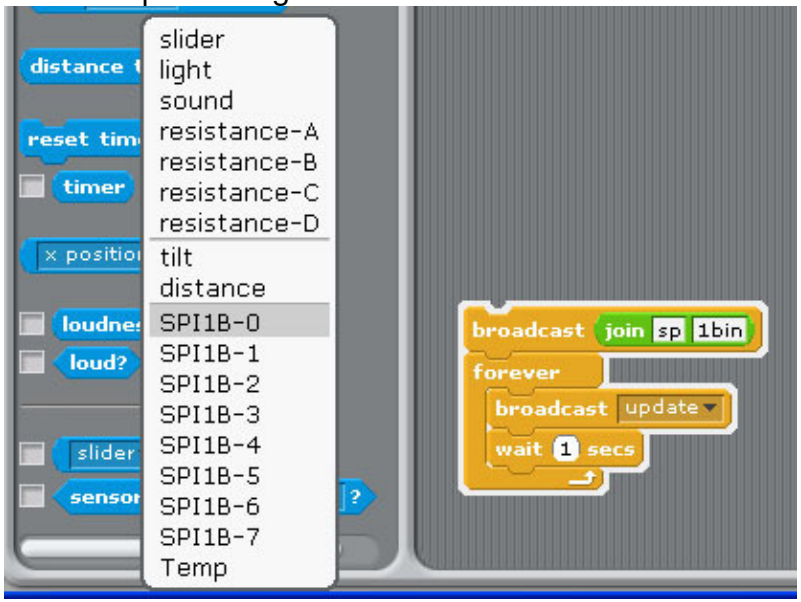
U1 to U4 spi 23s17 address 40,42,44,46
U5 to U8 spi 23s17 address 48,4a,4c,4e

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

sp5b7 --> spi address 5 Port B bit 7 ON/OFF
sp7b4 --> spi address 7 Port B bit 4 ON/OFF
bits2b01010101 --> address 2 port B from bit 8 to 11
output --> 01010101
bits8a01010101 --> address 8 port A from bit 8 to 1
output --> 01010101
bits2aoff --> address 2 Port A all OFF/clear

GPIO input setting




```
Command "sp"+ "address(1-8)" + "a" +"in" for Port A
Command "sp"+ "address(1-8)" + "b" +"in" for Port B

command "sp1bin" initial address 40, Port B as input
broadcast "Update" in Sensing ---> Slider ,

you will see "SPI1B-0 ~ SPI1B-7" in the list
```