

BananaPi uses DVK-511

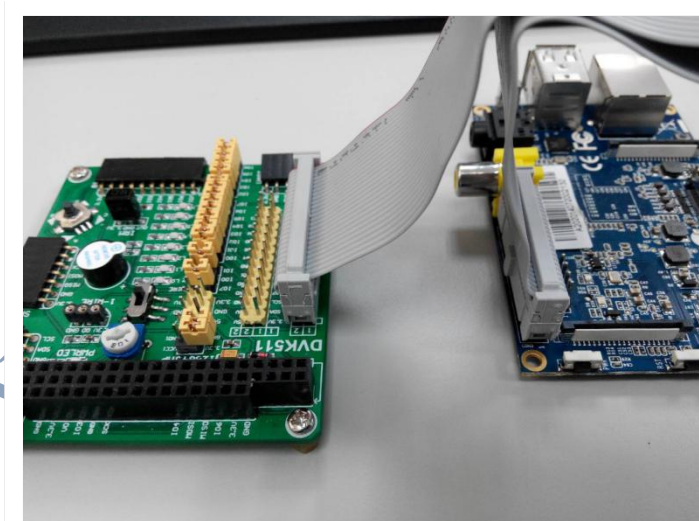
UART

By Justin Chen

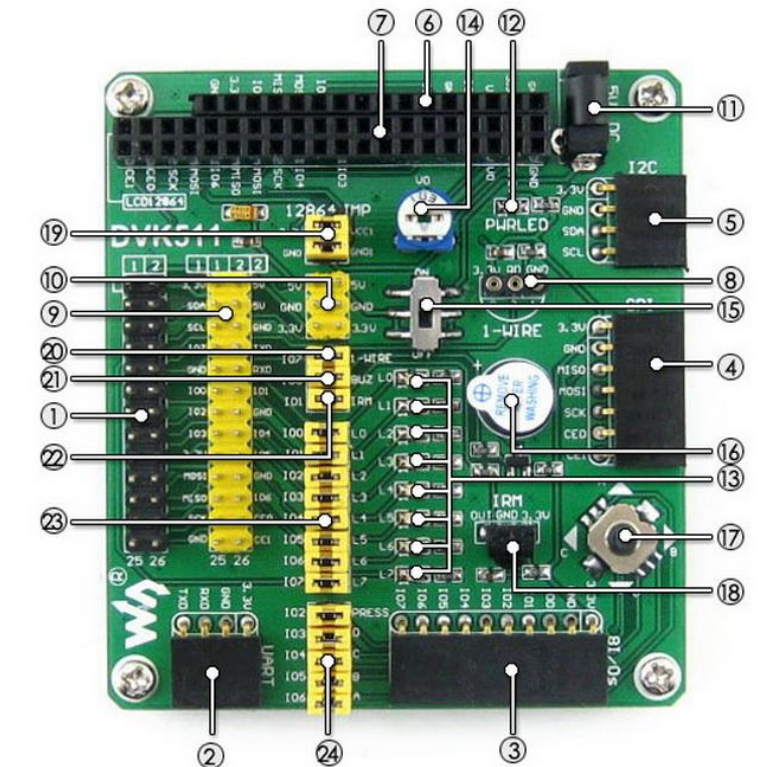
1. Please download the customized Raspbian Image for BananaPi from our website <http://www.bananapi.com> For how to burn the images to the SD card, please go to <http://www.bananapi.com/index.php/download?layout=edit&id=42>
2. The Image burn in SD card has preload the customized WiringPi Lib before, if download WiringPi Lib by yourself, you will need to modify it, otherwise it can't use; WiringPi Lib can find in /opt/gpio-lib.

```
pi@bananapi: /opt/gpio-lib
File Edit Tabs Help
pi@bananapi /opt/gpio-lib $ ls
RPi.GPIO-0.5.5 ScratchGPIO5 WiringBPi_Beta_V2.0
```

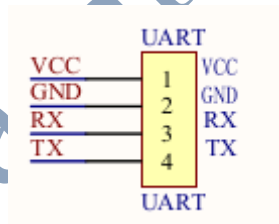
3. BananaPi connect pinboard of DVK511.



4. DVK511 second jack UART interface.



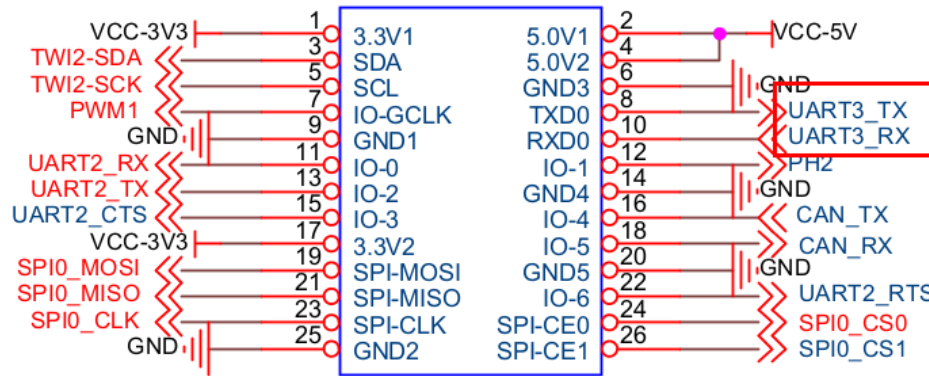
5. Check UART layout to know the definition of each pins .



UART PIN's Layout

wiringPi PIN	BCM GPIO		Pi 1		BCM GPIO	wiringPi PIN
3.3V	3.3V	VCC	1	2	5V	5V
8	va:0/vb:2	SDA	3	4	5V	5V
9	va:1/vb:3	SCL	5	6	GND	GND
7	4	*GPIO7	7	8	TX	14
GND	GND	GND	9	10	RX	15
0	17	*GPIO0	11	12	GPIO1 *	18
2	va:21/vb:27	GPIO2	13	14	GND	GND
3	22	GPIO3	15	16	GPIO4	23
3.3V	3.3V	VCC	17	18	GPIO5	24
12	10	MOSI	19	20	GND	GND
13	9	MISO	21	22	GPIO6	25
14	11	SCK	23	24	CE0	8
GND	GND	GND	25	26	CE1	9
						11

It's DVK-511 26PINs Layout from above pictures, then UART PIN pull out from 26pins through extra cable. the eighth and tenth from 26pins shows TX and RX ;



(above pictures)checked relative BananaPi's 26pins layout,can found that eighth and tenth pins is UART3_TX and UART3_RX;then BananaPI defined UART Serial ports as ttyS2 °

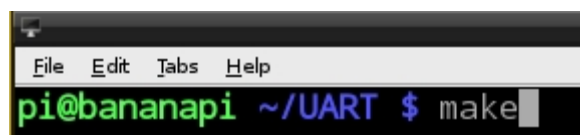
6. Open File Manager,copy UART's Data to home's catalog file °



Open LXTerminal on the desktop , switch to relative UART data file.



Execute compiled order:



Running order and UART serial port testing program

```
pi@bananapi: ~/UART
File Edit Tabs Help
pi@bananapi ~/UART $ sudo ./serialTest_BPi ttyS2
```

6. Install serial port program in another computer,example: Ubuntu can install minicom to check serial port ◦
<http://hacker81305.pixnet.net/blog/post/4397785-minicom-%E5%AE%89%E8%A3%9D%E6%95%99%E5%AD%B8>

```
+-----+
| A -   Serial Device       : /dev/ttyUSB0
| B - Lockfile Location    : /var/lock
| C -   Callin Program      :
| D -   Callout Program     :
| E -   Bps/Par/Bits        : 115200 8N1
| F - Hardware Flow Control : No
| G - Software Flow Control : No
|
| Change which setting?
+-----+
```

Installed minicom in Ubuntu , please revised /dev/ttyUSB0

7. Finally entering into any character arbitrarily in minicom which install from Ubuntu ,will appear relative character in LXTerminal ◦