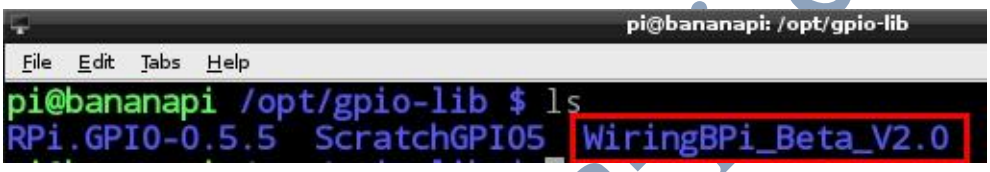
BananaPi uses DVK-511

I2C_PCF8574

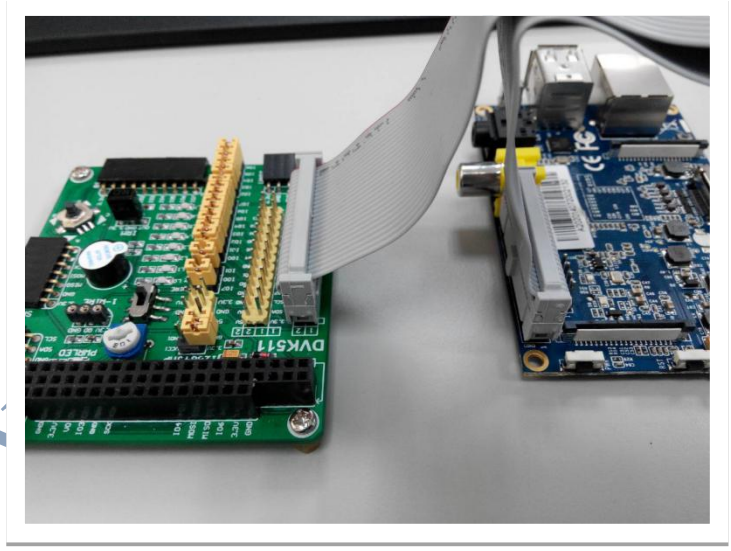
By Justin Chen

1. First go to website http://www.bananapi.com/ download BananaPi customized Raspbian Image; about how to burn the image into SD http://www.bananapi.com/index.php/download?layout=edit&id=42.

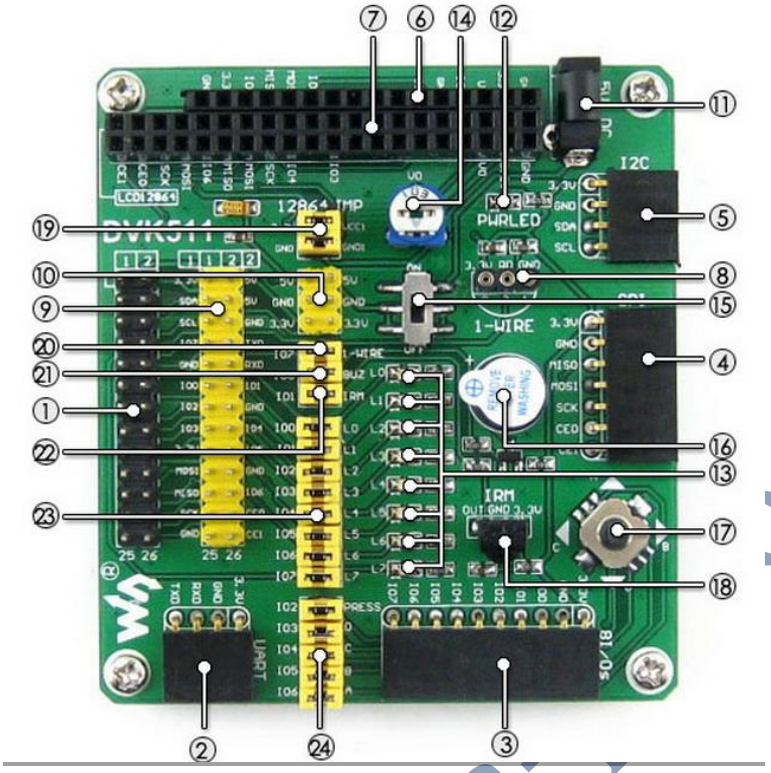
2. The Image burn in SD card has preload the customized WiringPi Lib before, if download WiringPi Lib by yourself, you will need to modify it, otherwise it can't use; WiringPi Lib can find in /opt/gpio-lib.

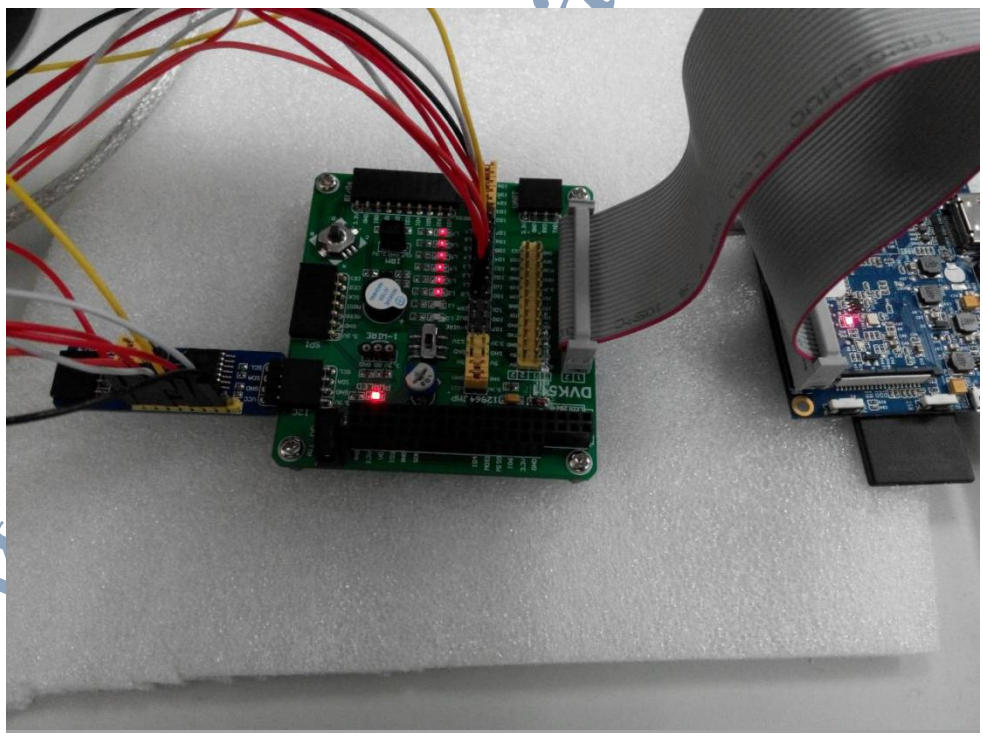


3. Banana Pi connect Adapter plate DVK511,as below picture showed.



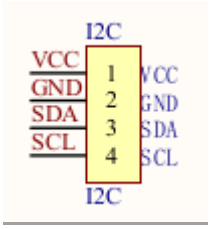
4. The fifth socket of DVK511 is I2C interface(PCF8574).





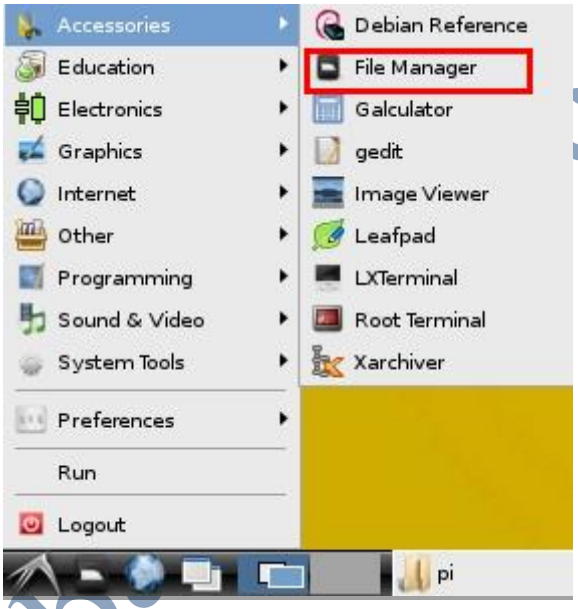
5. After connect I2C_PCF8574, then need to remove the IO0~IO7's Jumper at twenty three slot. Using jumper connect PO0~PO7 of I2C_PCF8574 to IO0~IO7 of DVK-511 motherboard,and with one correspondence.

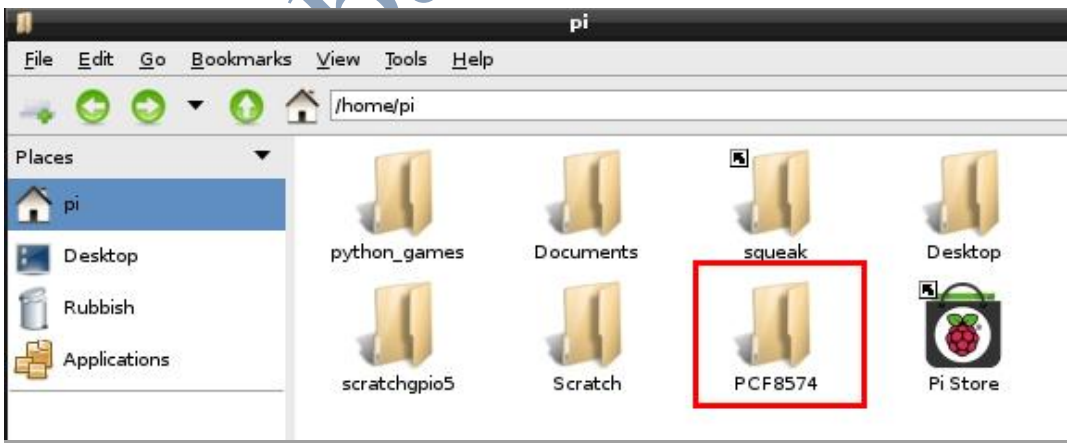
6. Check I2C interface's corresponding table to get know each PIN's corresponding



Above picture shows I2C interface PIN's corresponding table

7. Using sample code to verify the functions,then open File Manager software put the PCF8574folder copy to the home contents,like below picture showed.

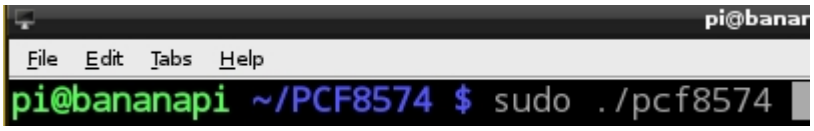




Changed to the relative PCF8574 folder

Execute translate and edit order

Execute order and open I2C_PCF8574



8. Finally, check DVK-511 motherboard LED L0-L7 is light or not.

9. The demo showed is that I2C_PCF8574 can use 4pins to imitation GPIO 8pins,and declaring 8 bits can control the hexadecimal output:

G7 light on: Bits 1000 0000, changed to Hex 0x80
G6 light on: Bits 0100 0000, changed to Hex 0x40
G5 light on: Bits 0010 0000, changed to Hex 0x20
G4 light on: Bits 0001 0000, changed to Hex 0x10
G3 light on: Bits 0000 1000, changed to Hex 0x08
G2 light on: Bits 0000 0100, changed to Hex 0x04
G1 light on: Bits 0000 0010, changed to Hex 0x02
G0 light on: Bits 0000 0001, changed to Hex 0x01