

## Raspberry pi 2 System Installation and Start

### 1.1、Preparation

#### (1) Hardware Preparation

Raspberry pi Mainboard 、PC、[Bee Adapter](#)、Wireless USB adapter、[SD card](#)、Micro USB cable、Jumper Wire.



#### (2)、Software Preparation

Download the new edition of Raspbian operating system from <http://www.raspberrypi.org/downloads> , and we use the wheezy edition for test, which was released in August 7th,2013.

Download SD card Mirror Writing Tools [Win32DiskImager](#)。

Install SecureCRT to PC

### 1.2 Download SD card Mirror Image Writing Tools

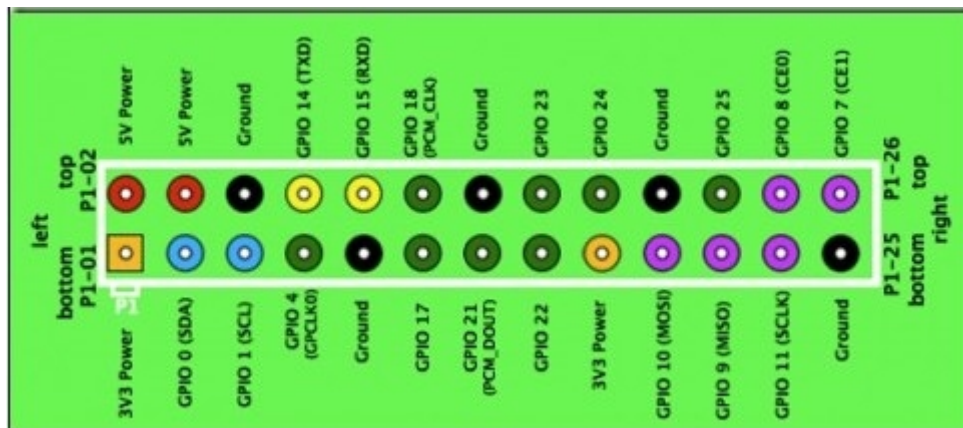
Unpack the software downloaded by last step to get the file of xxx.img,and insert the SD card into the PC via Reader. Open the Win32DiskImager software , and the operation steps are presented as bellow



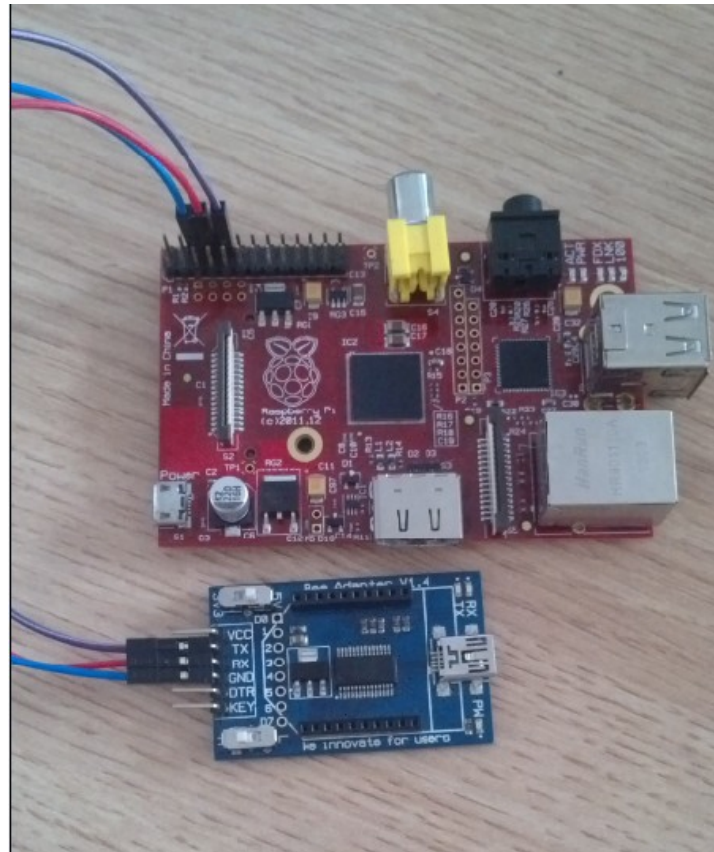
The above Image File represents xxx.img mirror image file's path (remember that the storage path can not have Chinese), device indicates the SD card drive letter G . When everything is ready, you can click on the write button and wait for a few minutes, then the mirror image writing would finish.

### 1.3 Boot the system and configure it through the serial port

#### (1) Raspberry pi 2 GPIO Pin Definition



#### (2) Raspberry pi 2 and Bee Adapter Connection

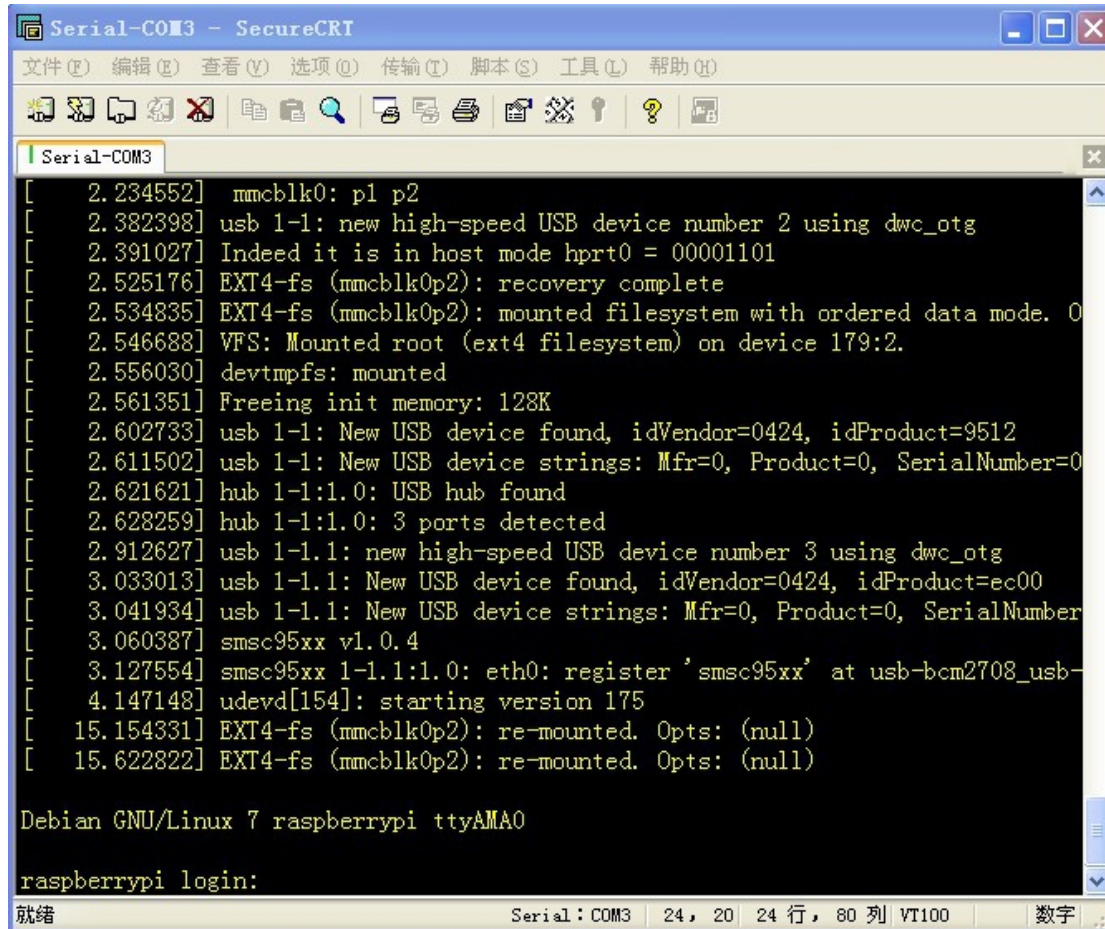


### (3) Set SecureCRT Terminal Software



### (4) Insert the SD card system to be charged

If SecureCRT emerge the following screen, that represents the successful launch of raspberry pi



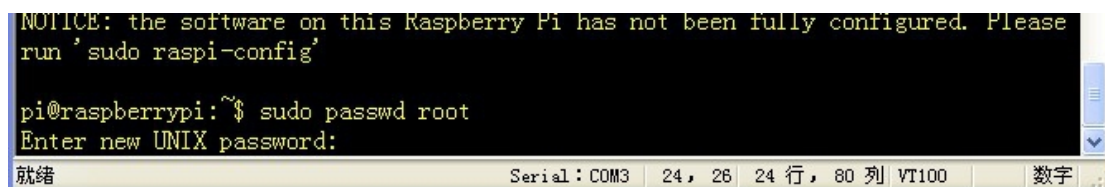
```
Serial-COM3 - SecureCRT
文件(F) 编辑(E) 查看(V) 选项(O) 传输(T) 脚本(S) 工具(L) 帮助(H)
Serial-COM3
[ 2.234552] mmcblk0: p1 p2
[ 2.382398] usb 1-1: new high-speed USB device number 2 using dwc_otg
[ 2.391027] Indeed it is in host mode hprt0 = 00001101
[ 2.525176] EXT4-fs (mmcblk0p2): recovery complete
[ 2.534835] EXT4-fs (mmcblk0p2): mounted filesystem with ordered data mode. 0
[ 2.546688] VFS: Mounted root (ext4 filesystem) on device 179:2.
[ 2.556030] devtmpfs: mounted
[ 2.561351] Freeing init memory: 128K
[ 2.602733] usb 1-1: New USB device found, idVendor=0424, idProduct=9512
[ 2.611502] usb 1-1: New USB device strings: Mfr=0, Product=0, SerialNumber=0
[ 2.621621] hub 1-1:1.0: USB hub found
[ 2.628259] hub 1-1:1.0: 3 ports detected
[ 2.912627] usb 1-1.1: new high-speed USB device number 3 using dwc_otg
[ 3.033013] usb 1-1.1: New USB device found, idVendor=0424, idProduct=ec00
[ 3.041934] usb 1-1.1: New USB device strings: Mfr=0, Product=0, SerialNumber=0
[ 3.060387] smsc95xx v1.0.4
[ 3.127554] smsc95xx 1-1.1:1.0: eth0: register 'smsc95xx' at usb-bcm2708_usb-
[ 4.147148] udevd[154]: starting version 175
[ 15.154331] EXT4-fs (mmcblk0p2): re-mounted. Opts: (null)
[ 15.622822] EXT4-fs (mmcblk0p2): re-mounted. Opts: (null)

Debian GNU/Linux 7 raspberrypi ttyAMA0

raspberrypi login:
```

### system start screen

Type the system login user name pi, and type login password raspberry, then you can enter the system, if the user does not know the system's initial login account, he can go to the official website to check it. We need to activate the root account, and the system default is to shield the root account, so we type `sudo passwd root` in the Terminal, if the following interface appears, we can set the password for the root account



```
NOTICE: the software on this Raspberry Pi has not been fully configured. Please
run 'sudo raspi-config'

pi@raspberrypi:~$ sudo passwd root
Enter new UNIX password:
```

After set up the password, you can switch to the root account, and enter `su root` command in the terminal to get into the root account. Next let's explain the wireless USB adapter configuration.