

树莓派

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12 回复贴，共1页

<<返回树莓派吧

【转】无显示器用网线登陆树莓派图形界面

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超级马里奥sky

核心会员



文章来源：<http://bbs.ickey.cn/group-topic-id-35842.html>

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树莓派板子到手快两周了，上周买好了SD卡、HDMI线等配件后，回来才发现笔记本电脑的HDMI口只能输出，不能输入HDMI信号，手上平板也是只能输出，不能输入。还好手上有一根多余的网线和一个路由器，可以通过网线来登陆树莓派。😊

物品清单

- 贴吧页面意见反馈
- 违规贴吧举报反馈通道
- 贴吧违规信息处理公示

8G class4 Micro SD卡

网线2条

手机充电器（5V 1A）1个

电脑1台

路由器1个

#### 1. 选择下载镜像文件

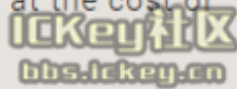
下载最新版本的树莓派镜像文件RASPBIAN，老的版本可能会有各种无法预料的问题。这里选择最新的2014-09-09版本，下载解压后得到镜像文件《2014-09-09-wheezy-raspbian.img》

RASPBIAN下载地址：

<http://www.raspberrypi.org/downloads/>

#### 2. 将镜像文件刷入SD卡

关于SD卡选择，官网有一段描述，如下图所示

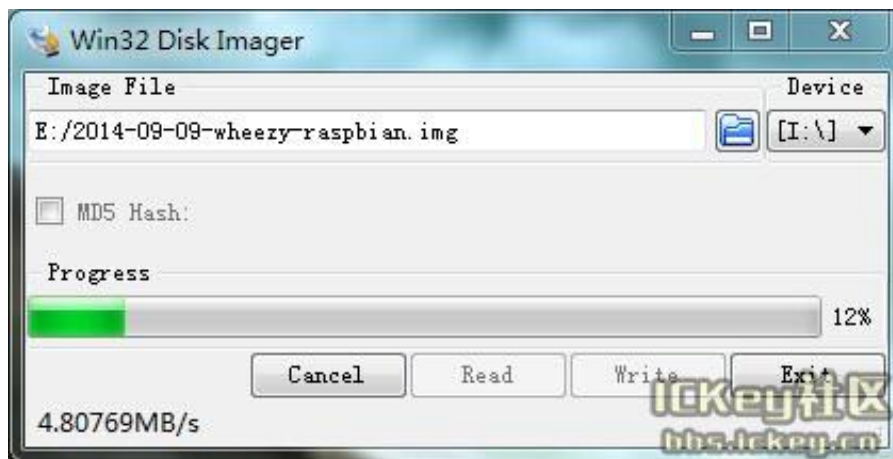
- SD card size. For installation of NOOBS, the minimum recommended card size is 8GB. For image installations we recommend a minimum of 4GB; some distributions can run on much smaller cards, specifically OpenElec and Arch.
  - SD card class. The card class determines the sustained write speed for the card; a class 4 card will be able to write at 4MB/s whereas a class 10 should be able to attain 10 MB/s. However it should be noted that this does not mean a class 10 card will outperform a class 4 card for general usage, because often this write speed is achieved at the cost of read speed and increased seek times.
- 

（楼主为了调试树莓派，专门买了一个16G的SD卡，结果发现写入速度只有3M多点，刷入镜像文件，插入树莓派中后，没有一点反应，板上绿灯长亮，没有读到SD卡。后来将手机中8G的SD卡刷入镜像后，才让树莓派正常启动，绿灯随机地闪烁。）

在刷入前，先观察一下SD卡的格式，如果是NTFS格式，请将其格式化 FAT32 格式。可以使用 SDFormatter 软件来格式化SD卡，格式化时需要将逻辑大小调整功能打开，如下图所示



windows系统下面，可以使用Win32DiskImager软件来将镜像文件刷入SD卡。这里需要注意刷入的镜像文件不能放在带中文的路径下面，否则会弹出无法找到文件句柄的错误对话框。选择镜像文件后，单击Write，几分钟就完成了镜像的刷入。



### 3. 启动树莓派

将镜像文件刷入SD卡后，将SD卡插到树莓派板子上，将网线一端插到路由器上，一端插到树莓派板子上，另一根网线一端插到路由器上，一端插到电脑上，手机充电器插到micro usb口，给树莓派板上电启动。



约二十多秒后，板上红灯长亮，绿灯随机地闪烁，表明系统已经启动。这时，打开电脑的浏览器，登陆到路由器网页（一般来说是<http://192.168.1.1>，用户名是admin，密码是admin），看看有没有为名称是Raspberrypi的设备分配到了IP地址，如果有，请记住，这个

就是树莓派的局域网IP。

客户端列表

ID	客户端名	MAC地址	IP地址	有效时间
1				
2				
3	raspberrypi	B8-27-EB-DF-85-FF	192.168.1.108	01:59:54

刷新

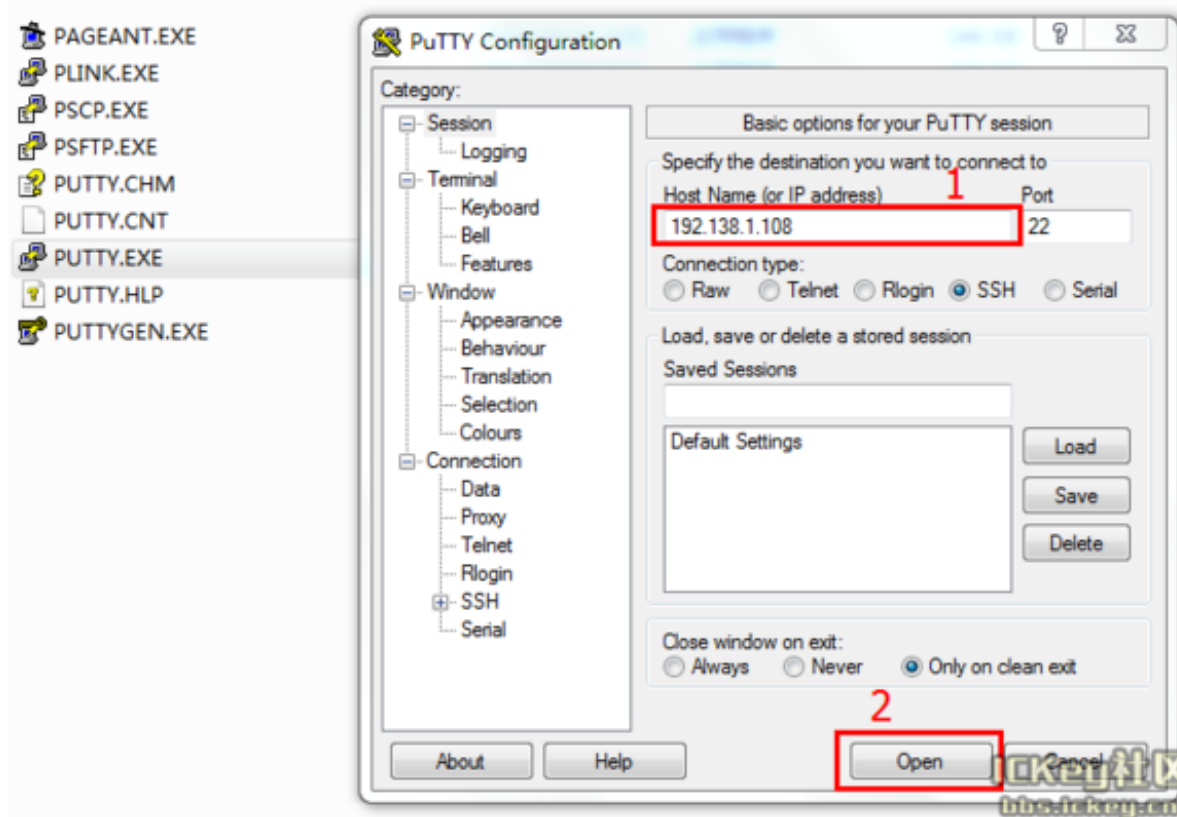
ICKey社区  
bbs.ickey.cn

#### 4. 使用SSH登陆树莓派

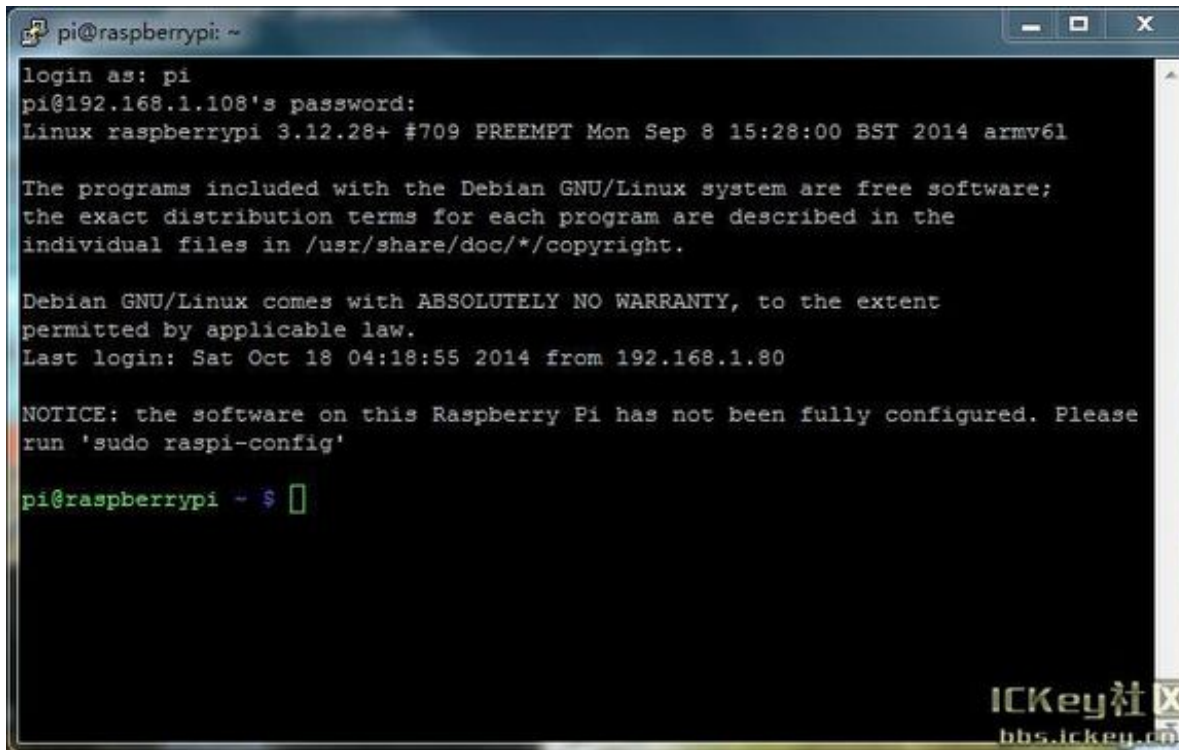
使用SSH登陆树莓派，需要putty软件来支持。putty软件下载地址

<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>

下载后解压，双击打开名为“PUTTY.EXE”的文件，在Host Name中输入刚刚在路由器页面看到的Raspberrypi的IP地址。单击Open登陆树莓派。



登录的默认账号是pi，密码是raspberry。输完登陆名和密码后，就进入了树莓派的命令行窗口



```
pi@raspberrypi: ~
login as: pi
pi@192.168.1.108's password:
Linux raspberrypi 3.12.28+ #709 PREEMPT Mon Sep 8 15:28:00 BST 2014 armv6l

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Sat Oct 18 04:18:55 2014 from 192.168.1.80

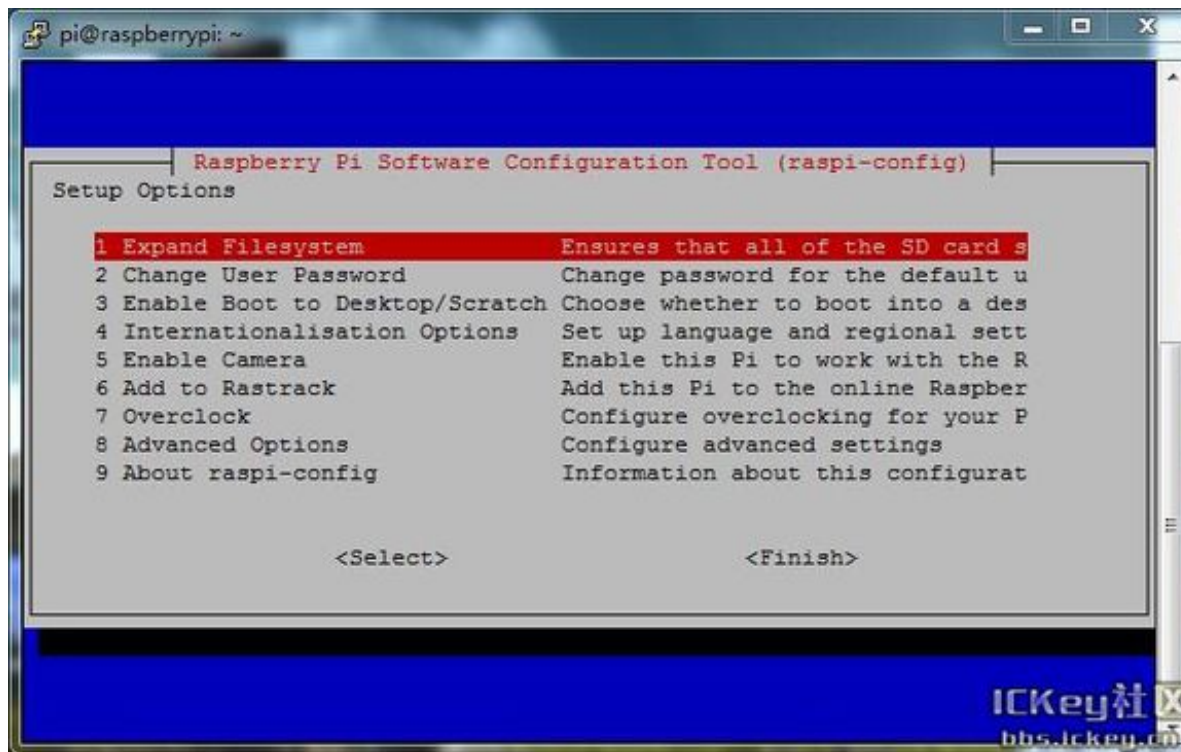
NOTICE: the software on this Raspberry Pi has not been fully configured. Please
run 'sudo raspi-config'

pi@raspberrypi ~$
```

## 5. 配置树莓派

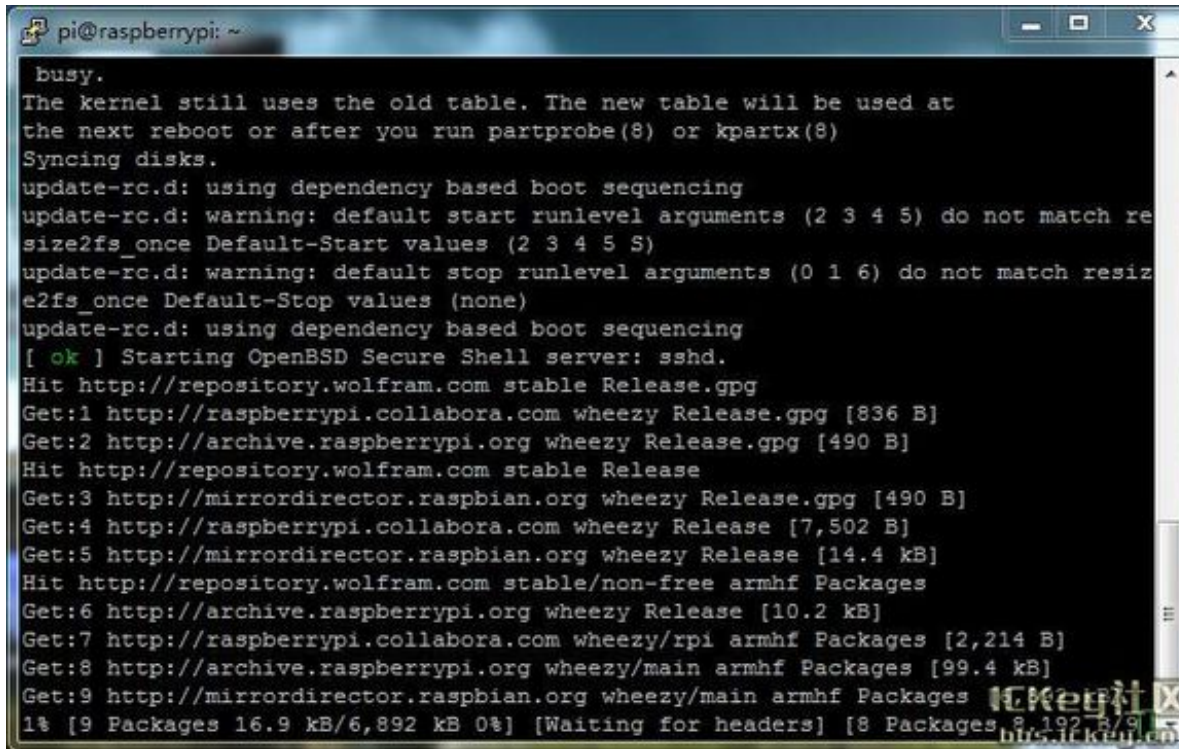
首次登陆SSH，最好配置一下Raspi，输入  
sudo raspi-config进入配置界面





选择Expand Filesystem，把整个系统的可用空间扩展到储存卡的大小。

再选择Advanced Options，选择Update，更新一下配置工具。



```
pi@raspberrypi: ~
busy.
The kernel still uses the old table. The new table will be used at
the next reboot or after you run partprobe(8) or kpartx(8)
Syncing disks.
update-rc.d: using dependency based boot sequencing
update-rc.d: warning: default start runlevel arguments (2 3 4 5) do not match re
size2fs_once Default-Start values (2 3 4 5 S)
update-rc.d: warning: default stop runlevel arguments (0 1 6) do not match resiz
e2fs_once Default-Stop values (none)
update-rc.d: using dependency based boot sequencing
[ ok ] Starting OpenBSD Secure Shell server: sshd.
Hit http://repository.wolfram.com stable Release.gpg
Get:1 http://raspberrypi.collabora.com wheezy Release.gpg [836 B]
Get:2 http://archive.raspberrypi.org wheezy Release.gpg [490 B]
Hit http://repository.wolfram.com stable Release
Get:3 http://mirrordirector.raspbian.org wheezy Release.gpg [490 B]
Get:4 http://raspberrypi.collabora.com wheezy Release [7,502 B]
Get:5 http://mirrordirector.raspbian.org wheezy Release [14.4 kB]
Hit http://repository.wolfram.com stable/non-free armhf Packages
Get:6 http://archive.raspberrypi.org wheezy Release [10.2 kB]
Get:7 http://raspberrypi.collabora.com wheezy/rpi armhf Packages [2,214 B]
Get:8 http://archive.raspberrypi.org wheezy/main armhf Packages [99.4 kB]
Get:9 http://mirrordirector.raspbian.org wheezy/main armhf Packages
1% [9 Packages 16.9 kB/6,892 kB 0%] [Waiting for headers] [8 Packages 8,192 B/915
```

点击Finish完成配置，回到命令行界面。

检查一下网络是否正常，输入

ping <http://www.qq.com>数据包未超时，表明网络连接正常。

```
pi@raspberrypi ~ $ ping www.qq.com
PING www.qq.com (182.254.1.167) 56(84) bytes of data.
64 bytes from 182.254.1.167: icmp_req=1 ttl=52 time=10.4 ms
64 bytes from 182.254.1.167: icmp_req=2 ttl=52 time=10.1 ms
64 bytes from 182.254.1.167: icmp_req=3 ttl=52 time=10.3 ms
64 bytes from 182.254.1.167: icmp_req=4 ttl=52 time=10.4 ms
64 bytes from 182.254.1.167: icmp_req=5 ttl=52 time=10.6 ms
64 bytes from 182.254.1.167: icmp_req=6 ttl=52 time=10.3 ms
64 bytes from 182.254.1.167: icmp_req=7 ttl=52 time=10.4 ms
64 bytes from 182.254.1.167: icmp_req=8 ttl=52 time=10.4 ms
64 bytes from 182.254.1.167: icmp_req=9 ttl=52 time=10.3 ms
64 bytes from 182.254.1.167: icmp_req=10 ttl=52 time=10.3 ms
64 bytes from 182.254.1.167: icmp_req=11 ttl=52 time=10.3 ms
```

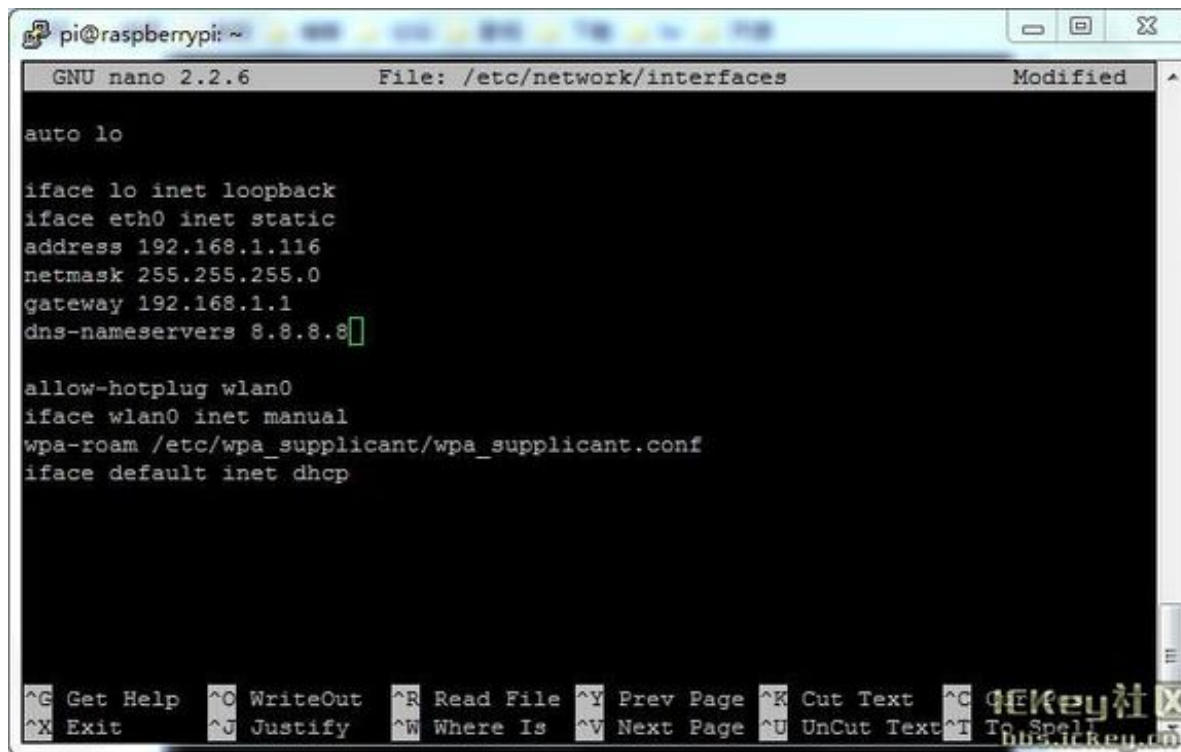
如果需要设置静态IP，可以输入命令

`sudo nano /etc/network/interfaces`可以看到文件内容如下



```
pi@raspberrypi: ~  
GNU nano 2.2.6 File: /etc/network/interfaces  
auto lo  
  
iface lo inet loopback  
iface eth0 inet dhcp  
  
allow-hotplug wlan0  
iface wlan0 inet manual  
wpa-roam /etc/wpa_supplicant/wpa_supplicant.conf  
iface default inet dhcp  
  
[ Read 9 lines ]  
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C To Spell  
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text
```

替换为（图中的192.168.1.116是自定义的IP地址）



```
pi@raspberrypi: ~  
GNU nano 2.2.6 File: /etc/network/interfaces Modified  
  
auto lo  
  
iface lo inet loopback  
iface eth0 inet static  
address 192.168.1.116  
netmask 255.255.255.0  
gateway 192.168.1.1  
dns-nameservers 8.8.8.8  
  
allow-hotplug wlan0  
iface wlan0 inet manual  
wpa-roam /etc/wpa_supplicant/wpa_supplicant.conf  
iface default inet dhcp  
  
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C  
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

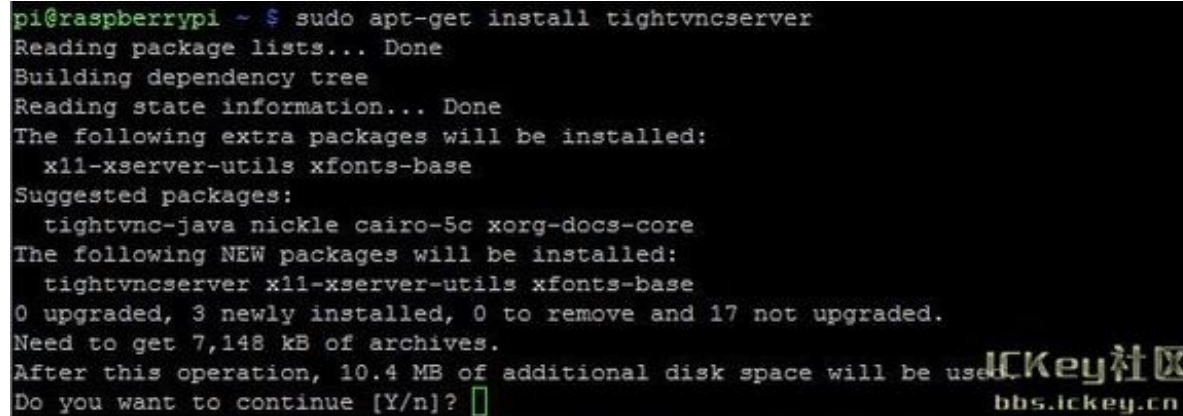
ctrl+o后再按Enter存盘，ctrl+x退出

## 6. 安装vncserver来使树莓派支持远程登陆图形界面

在命令行界面下，输入命令行

`sudo apt-get install tightvncserver`开始安装vncserver

```
pi@raspberrypi ~ $ sudo apt-get install tightvncserver
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  x11-xserver-utils xfonts-base
Suggested packages:
  tightvnc-java nickle cairo-1.5 xorg-docs-core
The following NEW packages will be installed:
  tightvncserver x11-xserver-utils xfonts-base
0 upgraded, 3 newly installed, 0 to remove and 17 not upgraded.
Need to get 7,148 kB of archives.
After this operation, 10.4 MB of additional disk space will be used.
Do you want to continue [Y/n]? ☐
```



安装成功后，输入

vncpasswd为登陆vncserver设置一个密码。输入两次，然后询问是否设置一个view-only密码，一般都不需要。

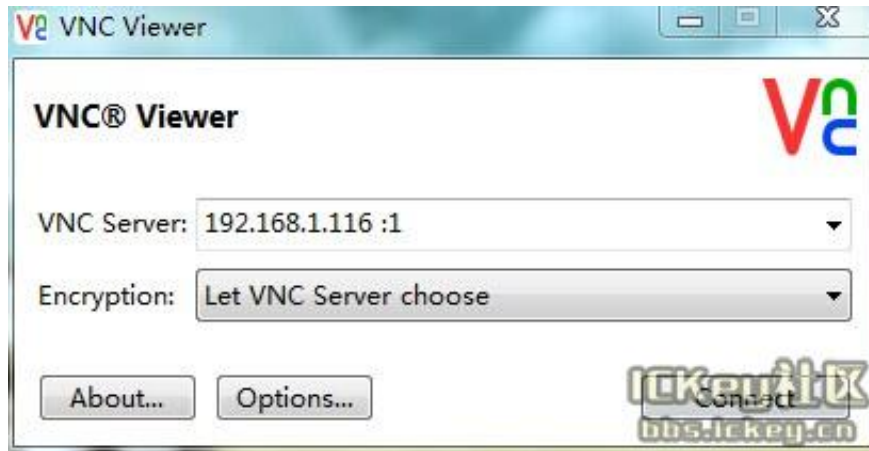
到这里，就可以启动图形界面的服务了，输入以下命令，创建一个1号桌面，分辨率为800x600

vncserver :1 -geometry 800x600。从PC电脑的vnc客户端登陆树莓派的图形界面

首先下载vnc客户端，下载地址是

<http://www.realvnc.com/download/viewer/>

安装好后打开VNC Viewer，输入树莓派的IP以及桌面的号，点connect后输入密码即可登录



几秒钟后，便从电脑的VNC客户端登陆到了树莓派的图形界面，显示效果如下



[+ 分享\(\)](#)