

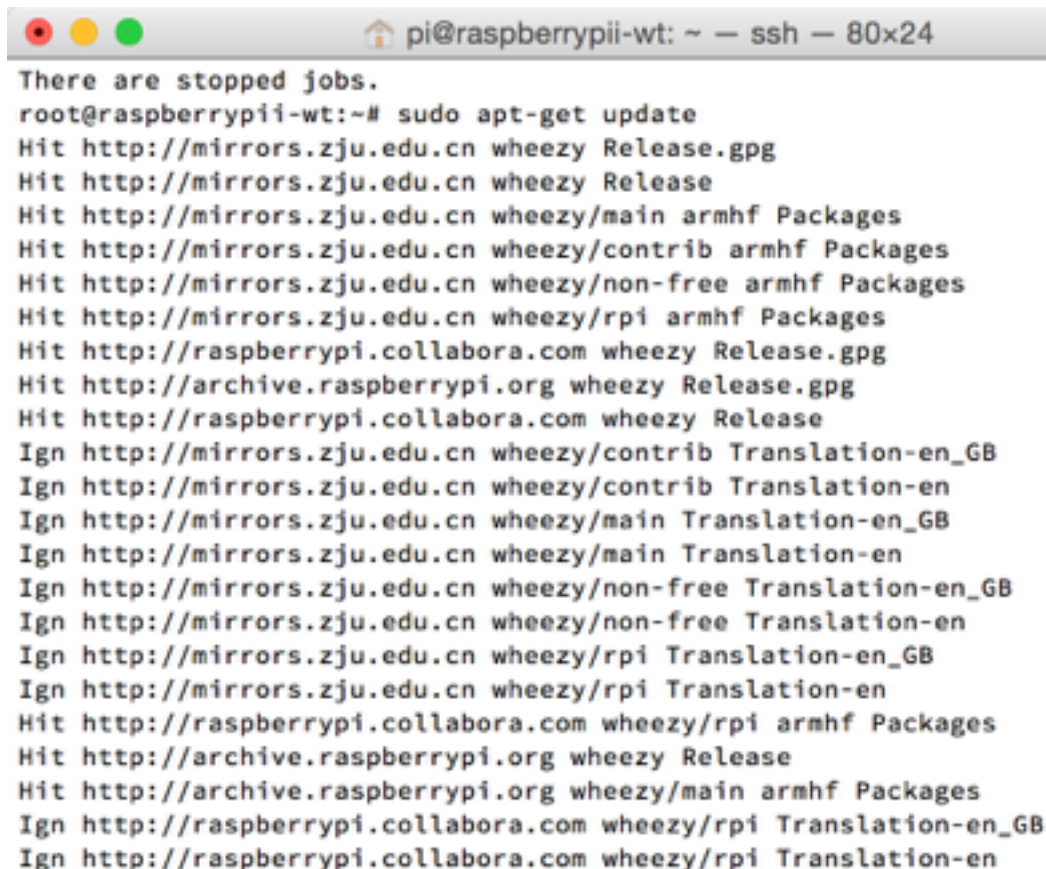
AirPlay

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1. 安装树莓派的一系列更新：使用命令

```
sudo apt-get update  
sudo apt-get upgrade
```

使用浙大的镜像站的资源（就是快）。



```
There are stopped jobs.  
root@raspberrypi-wt:~# sudo apt-get update  
Hit http://mirrors.zju.edu.cn wheezy Release.gpg  
Hit http://mirrors.zju.edu.cn wheezy Release  
Hit http://mirrors.zju.edu.cn wheezy/main armhf Packages  
Hit http://mirrors.zju.edu.cn wheezy/contrib armhf Packages  
Hit http://mirrors.zju.edu.cn wheezy/non-free armhf Packages  
Hit http://mirrors.zju.edu.cn wheezy/rpi armhf Packages  
Hit http://raspberrypi.collabora.com wheezy Release.gpg  
Hit http://archive.raspberrypi.org wheezy Release.gpg  
Hit http://raspberrypi.collabora.com wheezy Release  
Ign http://mirrors.zju.edu.cn wheezy/contrib Translation-en_GB  
Ign http://mirrors.zju.edu.cn wheezy/contrib Translation-en  
Ign http://mirrors.zju.edu.cn wheezy/main Translation-en_GB  
Ign http://mirrors.zju.edu.cn wheezy/main Translation-en  
Ign http://mirrors.zju.edu.cn wheezy/non-free Translation-en_GB  
Ign http://mirrors.zju.edu.cn wheezy/non-free Translation-en  
Ign http://mirrors.zju.edu.cn wheezy/rpi Translation-en_GB  
Ign http://mirrors.zju.edu.cn wheezy/rpi Translation-en  
Hit http://raspberrypi.collabora.com wheezy/rpi armhf Packages  
Hit http://archive.raspberrypi.org wheezy Release  
Hit http://archive.raspberrypi.org wheezy/main armhf Packages  
Ign http://raspberrypi.collabora.com wheezy/rpi Translation-en_GB  
Ign http://raspberrypi.collabora.com wheezy/rpi Translation-en
```

2. 修改音频输出端口，改为耳机输出

```
root@raspberrypi-wt:~# sudo amixer cset numid=3 1  
numid=3,iface=MIXER,name='PCM Playback Route'  
; type=INTEGER,access=rw-----,values=1,min=0,max=2,step=0  
: values=1  
root@raspberrypi-wt:~#
```

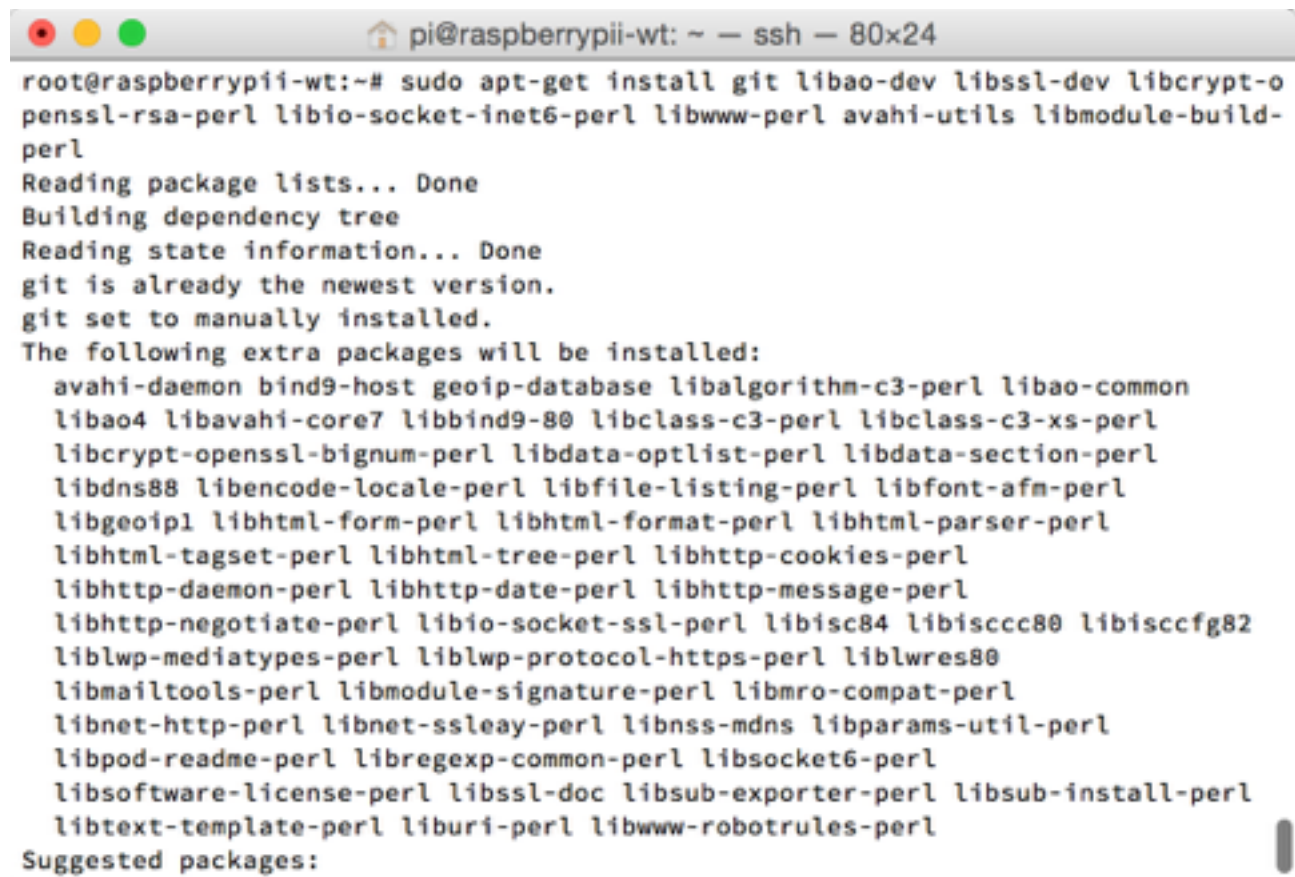
使用命令：

```
sudo amixer cset numid=3 1
```

3. 安装shairport前需要预装一些依赖软件，使用命令：

```
sudo apt-get install git libao-dev libssl-dev libcrypt-openssl-rsa-perl libio-socket- inet6-perl  
libwww-perl avahi-utils libmodule-build-perl
```

大约20M的内容



```
pi@raspberrypi-wt: ~ - ssh - 80x24  
root@raspberrypi-wt:~# sudo apt-get install git libao-dev libssl-dev libcrypt-  
openssl-rsa-perl libio-socket-inet6-perl libwww-perl avahi-utils libmodule-build-  
perl  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
git is already the newest version.  
git set to manually installed.  
The following extra packages will be installed:  
  avahi-daemon bind9-host geoip-database libalgorithm-c3-perl libao-common  
  libao4 libavahi-core7 libbind9-80 libclass-c3-perl libclass-c3-xs-perl  
  libcrypt-openssl-bignum-perl libdata-optlist-perl libdata-section-perl  
  libdns88 libencode-locale-perl libfile-listing-perl libfont-afm-perl  
  libgeoip1 libhtml-form-perl libhtml-format-perl libhtml-parser-perl  
  libhtml-tagset-perl libhtml-tree-perl libhttp-cookies-perl  
  libhttp-daemon-perl libhttp-date-perl libhttp-message-perl  
  libhttp-negotiate-perl libio-socket-ssl-perl libisc84 libisc80 libiscfg82  
  liblwp-mediatypes-perl liblwp-protocol-https-perl liblwres80  
  libmailtools-perl libmodule-signature-perl libmro-compat-perl  
  libnet-http-perl libnet-ssleay-perl libnss-mdns libparams-util-perl  
  libpod-readme-perl libregex-common-perl libsocket6-perl  
  libsoftware-license-perl libssl-doc libsub-exporter-perl libsub-install-perl  
  libtext-template-perl liburi-perl libwww-robotrules-perl  
Suggested packages:
```

由于ios6的升级，我们需要添加名为Perl NET-SDP包的支持

使用命令：

```
git clone https://github.com/njh/perl-net-sdp.git perl-net-sdp
```

```
root@raspberrypi-wt:~# git clone https://github.com/njh/perl-net-sdp.git perl-n  
et-sdp  
Cloning into 'perl-net-sdp'...
```

接下来我们使用Perl编译安装NET-SDP，详见下图

```
pi@raspberrypi-wt: ~ — ssh — 80x24
Resolving deltas: 100% (83/83), done.
root@raspberrypi-wt:~# cd perl-net-sdp/
root@raspberrypi-wt:~/perl-net-sdp# perl Build.PL
WARNING: the following files are missing in your kit:
    Makefile.PL
    META.yml
Please inform the author.

Created MYMETA.yml and MYMETA.json
Creating new 'Build' script for 'Net-SDP' version '0.07'
root@raspberrypi-wt:~/perl-net-sdp# sudo ./Build
Building Net-SDP
root@raspberrypi-wt:~/perl-net-sdp# sudo ./Build test
t/00use.t ..... ok
t/10generate.t .. ok
t/10parse.t ..... ok
t/20repeat.t .... ok
t/30asstring.t .. ok
All tests successful.
Files=5, Tests=69, 5 wallclock secs ( 0.82 usr 0.05 sys + 3.01 cusr 0.17 csy
s = 4.05 CPU)
Result: PASS
root@raspberrypi-wt:~/perl-net-sdp# sudo ./Build install
Building Net-SDP
```

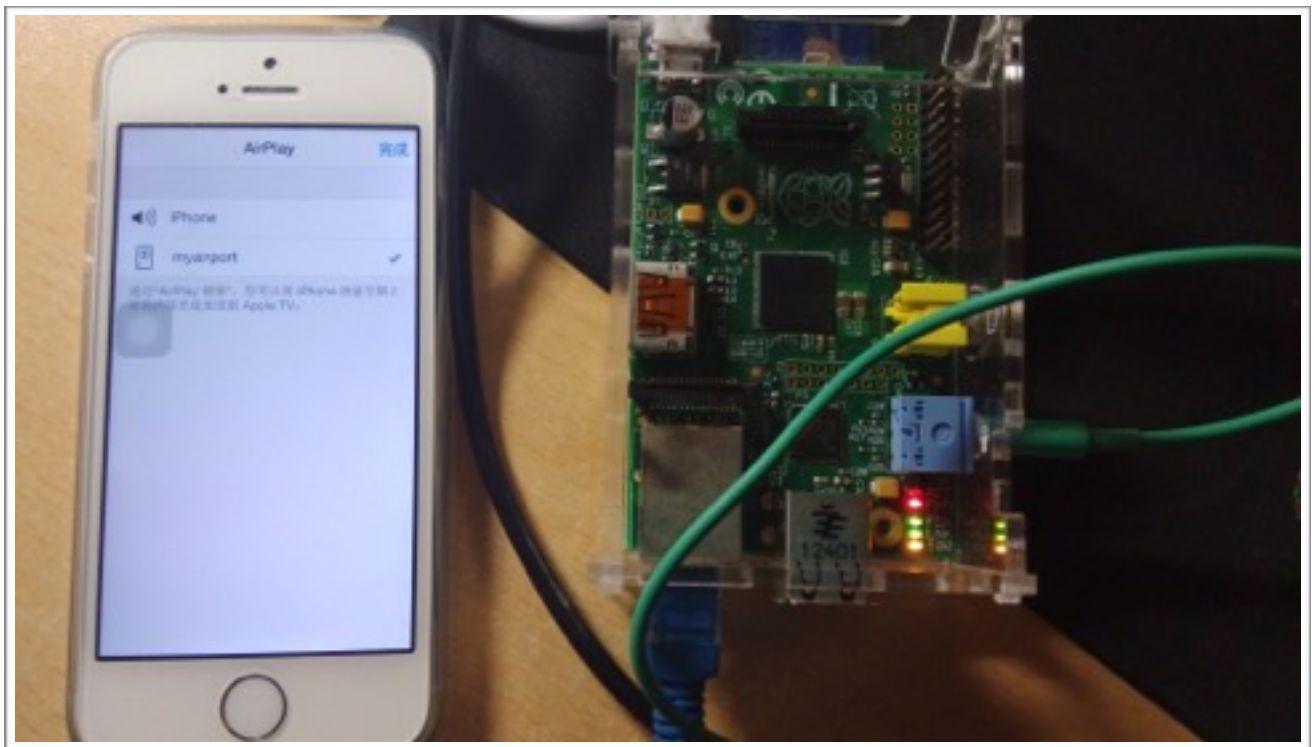
安装完成后，我们开始正式安装shairport
使用命令
git clone <https://github.com/hendrikw82/shairport.git>
从github下获得源码并编译make即可；

make编译

```
root@raspberrypi-wt:~# cd shairport/
root@raspberrypi-wt:~/shairport# make
cc -O2 -Wall -c alac.c -o alac.o
cc -O2 -Wall -DHAIRTUNES_STANDALONE hairtunes.c alac.o -o hairtunes -lm -lpthr
ead -lssl -lcrypto -lao
```

接下来就是开启airport服务：如下

```
root@raspberrypi-wt:~/shairport# ./shairport.pl -a myairport
Established under name '026CF95A92EC@myairport'
```



可以看到，手机已经找到了airplay业务，播放音乐也正常从耳机端输出；

支持，airplay配置全部完成；