



VIA APC Debian Linux

Download Image

<http://www.raspbian.org/ApricotImages>

? APC Debian image ??????????

??OSSLab ??????????

Install Image

1.sudo fdisk -l

you will see the your sd card disk, like /dev/sdb

2.sudo dd if=your\_image\_file.img of=/dev/sdb bs=64k

used "gparted" to change the roots partition size (? ApricotImages?image ?2GB ????)

== arduino IDE ==

sudo apt-get install arduino arduino-core

?????????arduino?avr-g++?avr-gcc?avrdude??????/usr/bin??

avrdude??????/etc/avrdude.conf?

??????API?????????/usr/share/doc/arduino-core????examples?reference??

Arduino????????/usr/share/arduino/hardware/arduino/cores/arduino??

????????/usr/share/arduino/libraries????????????????

Download latest Arduino IDE, for example "arduino-1.0.3" now

<http://arduino.cc/en/main/software>

If you use the embedded Linux like "Linaro" etc....

Please do below actions

1.cd arduino-1.0.3

cp /usr/lib/jni/librxtxSerial.so lib/librxtxSerial.so

cp /usr/share/java/RXTXcomm.jar lib/RXTXcomm.jar

2.cp /usr/bin/avrdude arduino-1.0.3/hardware/tools/avrdude

cp /etc/avrdude.conf arduino-1.0.3/hardware/tools/avrdude.conf

3.cd arduino-1.0.3/hardware/tools/avr/bin

cp /usr/bin/avr\* .

4.cd arduino-1.0.3/hardware/tools/avr/bin.gcc

cp /usr/bin/avr-cpp .

cp /usr/bin/avr-g++ .

cp /usr/bin/avr-gcc .

5.cd arduino-1.0.3/hardware/tools/avr/lib/gcc/avr

rm -rf \*

cp -r /usr/lib/gcc/avr/4.x.x .

6. cd arduino-1.0.3/

./arduino &

== ser2net

1.sudo apt-get install ser2net

2.sudo vim /etc/ser2net.conf

Add below, "3001" is port number.....

3001:raw:600:/dev/ttyUSB0:9600 NONE 1STOPBIT 8DATABITS XONXOFF LOCAL -RTSCTS

every time you reboot your board, you need to do

sudo chmod 666 /dev/ttyACM0 or

sudo chmod 666 /dev/ttyUSB0

===== mjpg-streamer =====???USB mjpeg webcam ??IP CAM ???

1.sudo apt-get install libjpeg-dev libjpeg62-dev

2.svn co <https://mjpg-streamer.svn.sourceforge.../mjpg-streamer> mjpg-streamer

3.cd mjpg-streamer/mjpg-streamer

4. ./start.sh
5. If you want to change the http port:  
 vim plugins/output\_http/output\_http.c:86  
 port = htons(8080); <<== change the port number

===luci==

<http://luci.subsignal.org/trac/wiki/Download>

```
sudo apt-get install lua5.1
sudo apt-get install liblua5.1-0-dev
sudo apt-get install libssl-dev
sudo apt-get install libncurses5 libncurses5-dev
sudo apt-get install bridge-utils
```

== lighttpd ==

Reference: <http://phorum.study-area.org/index.php?topic=67673.0>

1. sudo apt-get install lighttpd
2. sudo vim /etc/lighttpd/lighttpd.conf

```
index-file.names      = ( "index.php"? "index.html",
                          "index.lua", "index.cgi", <== ???
                          "index.htm", "default.htm",
                          " index.lighttpd.html" )
```

?"indlsex-file.names"??????????, ????????

3. sudo vim /etc/lighttpd/conf-available/10-cgi.conf  
 ==> ??? alias.url = ("/cgi-bin/" => "/var/www/cgi-bin/")
4. sudo lighty-enable-mod cgi
5. sudo /etc/init.d/lighttpd restart

== kernel ==

Install CROSS\_COMPILE

- 1.wget <http://www.codesourcery.com/sgpp/lit...ux-gnu.tar.bz2>
2. sudo cp arm-2009q1-203-arm-none-linux-gnueabi-i686-pc-linux-gnu.tar.bz2 /usr/local
3. sudo tar -jxvf arm-2009q1-203-arm-none-linux-gnueabi-i686-pc-linux-gnu.tar.bz2
4. vi ~/.bashrc  
 export PATH=\$PATH:/usr/local/arm-2009q1/bin

## Build Kernel

- 1.git clone <https://github.com/apc-io/apc-8750.git>
- 2.wget <http://www.raspbian.org/ApricotImage...3> kernel.patch
- 3.cd apc-8750  
patch -p1 < apc\_apricot\_r3\_kernel.patch
- 4.cd kernel
  - a. make ARCH=arm CROSS\_COMPILE=arm-none-linux-gnueabi- ubin
  - b. make ARCH=arm CROSS\_COMPILE=arm-none-linux-gnueabi- modules
  - c. mkdir /some/where/your/folder/modules
  - d. make ARCH=arm CROSS\_COMPILE=arm-none-linux-gnueabi- INSTALL\_MOD\_PATH=/some/where/your/folder/modules modules\_install
5. insert your sd card
  - a. cp uzImage.bin /media/BOOT
  - b. sudo cp -r /some/where/your/folder/modules/lib/modules /media/APC/lib

- [VIA APC Serial/UART Access](#)
- [Building an ARM Tool chain for the VIA APC](#)
- [Exploring and Building the VIA APC U-Boot](#)
- [Building the Stock VIA APC Kernel](#)
- [Redsleeve Linux on the VIA APC](#)