



CUBIEBOARD

<http://cubieboard.org>

Microphone-installation-guide-v1.0

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Version	Author	Modification	Check
V1.0-20170217	Reashion	Init version	



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1. Support flash upgrade mode

Trough the USB data cable directly to the fireware image file download to the 4G EMMC

2. Tools&firmware

2.1 Linux PC

Way one:

Have downloaded the Cubieboard6 source code, then the FWBurningToo installation package in the source directory

Path :XXX-sdk/owl/tools/burn_tool

As follows:

```
xdr@ubuntu12:/work/SDK/s500$ cd owl/tools/burn_tool/  
xdr@ubuntu12:/work/SDK/s500/owl/tools/burn_tool$ ls  
FWBurningTool-1.1.run  
xdr@ubuntu12:/work/SDK/s500/owl/tools/burn_tool$
```

Installation and operation FWBurningTool:

```
$cd owl/tools/burn_tool
```

```
$ ./FWBurningTool-1.1.run
```

Way two:

[Link](#) path: /Tools/FW Burning Tool(for Linux)_V1.1_01.7z

After decompression, installation, such as the "one way" the same, after the installation is completed, enter the Bin directory, found that the newly generated ActionsFWU.py file

```
bill@bill:~/Bin$ ls  
ActionsFWU.py libFileSystem.so
```

2.2. Windows PC

Install FWBurningTool in windows,you can download by this link:

[Link](#) path: /Tools/FW Burning Tool(for Windows)_V2.01.03.tar

2.3. firmware

Linux firmware download: [Link](#) path:/image

3. Upgrade Steps

3.1. Linux

1.) Enter the ADFU mode

You must enter the ADFU mode before flash the firmware,complete the following steps:

Press the ADFU button before connect the Micro USB cable, and then you can use this command to check whether the PC has been detected ADFU equipment. If the red part of the display indicates that the PC computer has correctly identified the ADFU device. The user can use the burning command to burn.

`$ sudo lsusb`

As shown in the following

Bus 003 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub

Bus 003 Device 006: ID 10d6:10d6 Actions Semiconductor Co., Ltd

Bus 004 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub

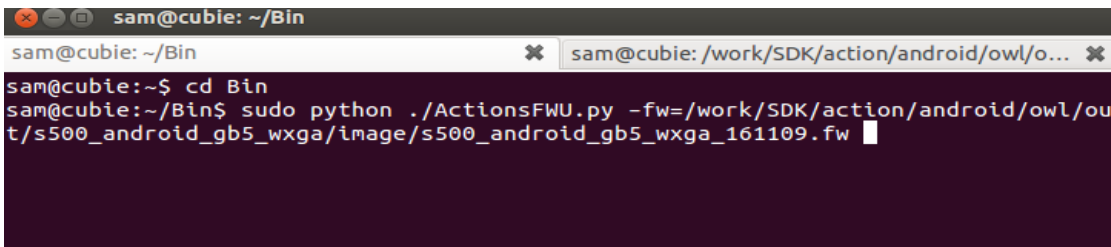
Bus 001 Device 002: ID 8087:0024 Intel Corp. Integrated Rate Matching Hub

2.) Flash the image

Enter Bin directory, and then use this command to flash

`$ sudo python ./ActionsFWU.py -fw=/firmware path/*.fw`

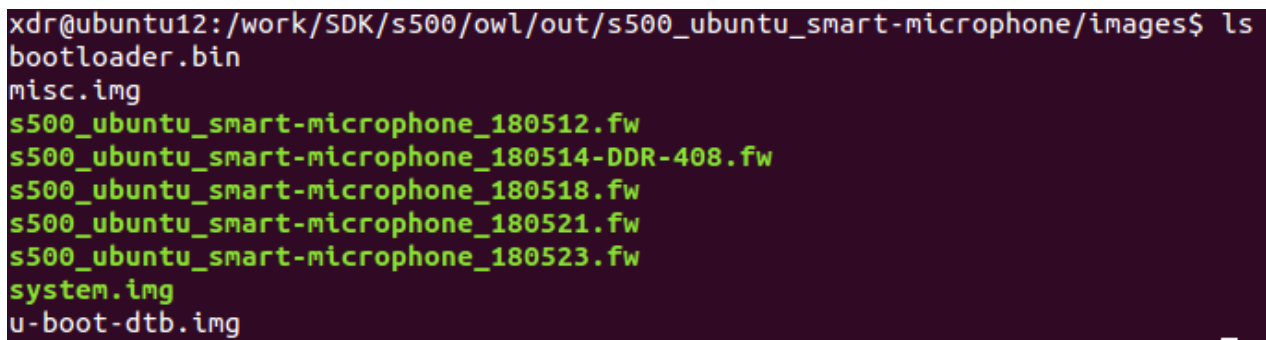
As shown in the following figure.



```
sam@cubie: ~/Bin
sam@cubie: ~/Bin
sam@cubie:~$ cd Bin
sam@cubie:~/Bin$ sudo python ./ActionsFWU.py -fw=/work/SDK/action/android/owl/out/s500_ubuntu_gb5_wxga/image/s500_ubuntu_gb5_wxga_161109.fw
```

linux path: /owl/out/s500_ubuntu_*/images

linux named: s500_ubuntu_cubieboard6_161113.fw (161113:the firmware compile time)



```
xdr@ubuntu12:/work/SDK/s500/owl/out/s500_ubuntu_smart-microphone/images$ ls
bootloader.bin
misc.img
s500_ubuntu_smart-microphone_180512.fw
s500_ubuntu_smart-microphone_180514-DDR-408.fw
s500_ubuntu_smart-microphone_180518.fw
s500_ubuntu_smart-microphone_180521.fw
s500_ubuntu_smart-microphone_180523.fw
system.img
u-boot-dtb.img
```

Flash start

```
35% write p1 size = 2048 : ok
WRITE_MISC_PARTITION
37% write p2 size = 98304 : ok
WRITE_RECOVERY_PARTITION
39% write p3 size = 98304 : ok
WRITE_SYSTEM_PARTITION
91% write p4 size = 2097152 : ok
FORMAT_BOOT_MSG_PARTITION
91% write p5 size = 20480 : ok
FORMAT_DATA_PARTITION
91% write p6 size = 20480 : ok
FORMAT_CACHE_PARTITION
91% write p7 size = 20480 : ok
FORMAT_SWAP_PARTITION
91% write p11 size = 20480 : ok
95% TRANSFER OVER ...
Firmware upgrade successfully!
sam@cubie:~/Bin$
```

Appear “Firmware upgrade successfully!” Flash done.

3.2.Window

1.) Run FWBurningTool

Open the IH firmware programming tool, connect with the development board USB data cable. Remember to press the ADFU key when connecting to the USB data cable. After a successful connection, IH firmware tool detected 1 USB devices to be detected



2.) Choose firmware

Click “选择新固件” to choose firmware and click “替换” to confirm.



3.) Click “下载” to flash



Flash done when it appear “Successful”.