

Version 1.4 Release

1 How to flash stock Meizu Pro 5 to Ubuntu Touch

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DISCLAIMER:

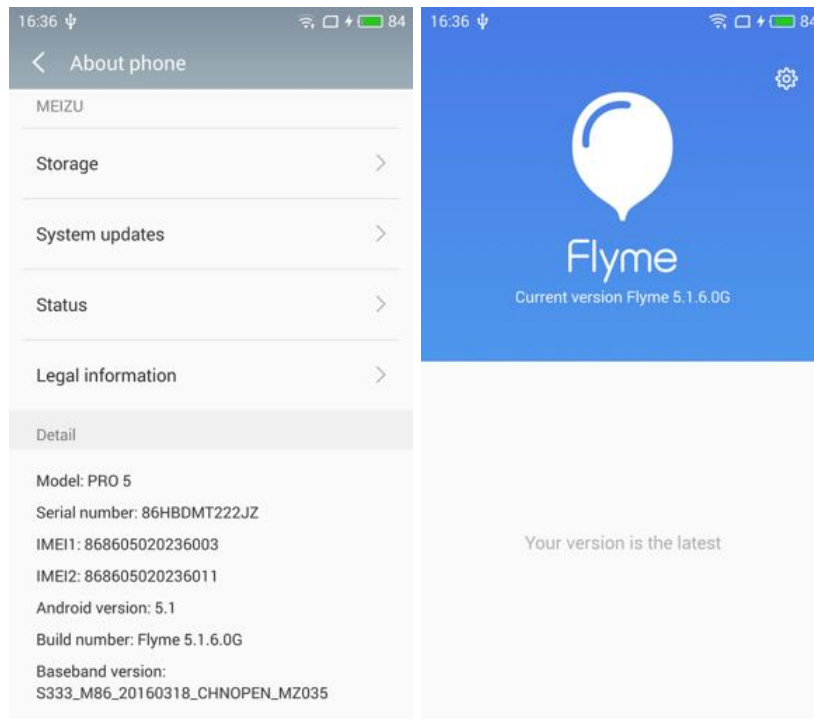
We take no responsibility for you using this manual. If you do decide to use it, make sure you have backups of all your data on the device before proceeding. We tested this procedure multiple times without problems, but we cannot guarantee that your phone will be working. Try at your own risk, we will not be held responsible if your device encounters issues. It is possible that you may brick your device, rendering it completely unusable, please be careful.

Here are instructions for installing Ubuntu Touch OS on the Meizu Pro 5 device.
We bought our Meizu Pro 5 at the webshop **Meizu.Fr**
Model: **M576H LTE**

2 Meizu Pro 5



Our model was locked and has an un-rooted bootloader. And not unlockable with oem unlock.



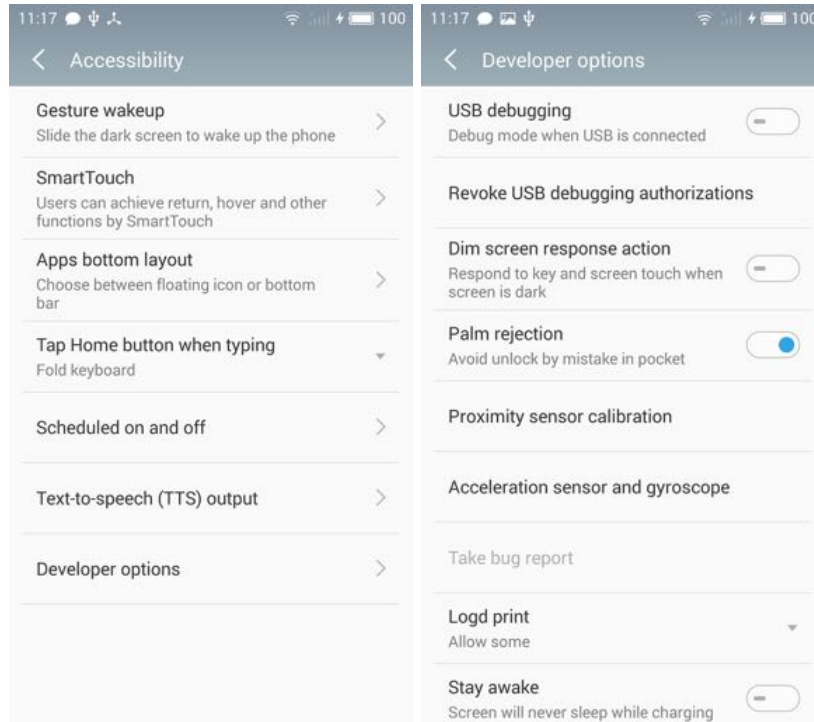
Our phone was installed with the latest Flyme OS. The Flyme version was 5.1.6.0G

3 Preparation

3.1 Preconditions

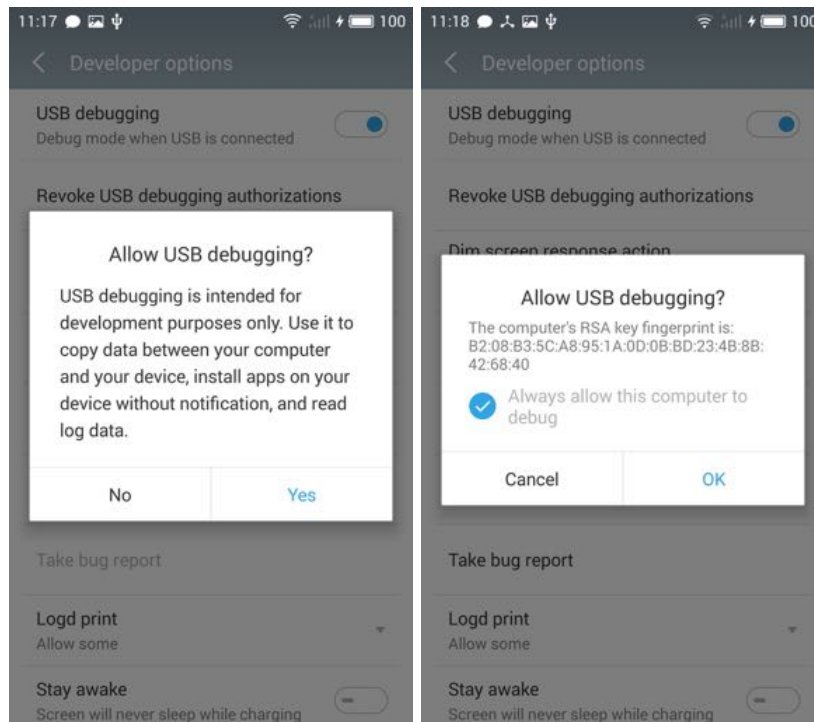
- Fully charged Meizu Pro 5, or at least 50%
- Linux knowledge (command line)
- Installed and working adb, fastboot and ubuntu-device-flash

3.2 Activate adb



Activate adb.

Select Settings, Accessibility, Developer options, USB debugging.



Allow USB debugging? Select Yes. Mark " always allow this computer to debug" , select OK.

Note: Your device must be connected to the pc to activate USB debugging. If adb displays unauthorized you can use the next commands.

Terminal command:

- 1 \$ adb kill-server
- 2 \$ adb devices

```
wouter@ik:~$ adb devices
List of devices attached
86HBDMT222JZ    unauthorized

wouter@ik:~$ adb kill-server
wouter@ik:~$ adb devices
List of devices attached
* daemon not running. starting it now on port 5037 *
* daemon started successfully *
86HBDMT222JZ    device
```

4 Download necessary files

Now ADB is active, we need to download all necessary files. Our work directory for this document is `~/Download/meizu/` all downloaded files will be saved in `~/Download/meizu/files/`

4.1 Beta firmware

We are going to downgrade the current Flyme OS to a beta version, because this beta firmware version has an unlocked bootloader.

You can find this beta firmware here at XDA. (step 1. Download the firmware via MediaFire or Mega) We saved the downloaded file to `~/Downloads/meizu/files/beta.zip`.

4.2 Custom recovery

A custom recovery is used for installing custom software on your device. This custom software can include smaller modifications like rooting your device or even replacing the firmware of the device with a completely custom. This TWRP custom recovery can be downloaded here at XDA. (download "TWRP 3.0 M86 fastboot flashable image") We saved the downloaded file to `~/Downloads/meizu/files/TWRP_3.0_m86.img`.

4.3 Ubuntu Touch files

The Ubuntu-device-flash didn't work as we expected, so we had to download and extract the Ubuntu-files manually. We used the options `-download-only -device=turbo -channel=ubuntu-touch/stable/meizu.en`. Ubuntu-device-flash will download files to `~/.cache/ubuntuimages/`

Terminal command:

```
1 $ ubuntu-device-flash --download-only touch --device=turbo
2 --channel=ubuntu-touch/stable/meizu-pd.en
```

```
wouter@ik:~/Downloads/meizu$ ubuntu-device-flash --download-only touch --device=turbo
--channel=ubuntu-touch/stable/meizu-pd.en
2016/08/23 09:40:40 Device is |turbo|
2016/08/23 09:40:40 Flashing version 4 from ubuntu-touch/stable/meizu-pd.en channel
and server https://system-image.ubuntu.com to device turbo
67.78 MB / 67.78 MB [=====] 100.00 % 4.05 MB/s
103.04 MB / 103.04 MB [=====] 100.00 % 3.86 MB/s
296.11 MB / 296.11 MB [=====] 100.00 % 6.51 MB/s
2016/08/23 09:41:25 Downloaded files for version 4, channel ubuntu-touch/stable/meizu-pd.en,
exiting without flashing as requested.
```

5 Install beta firmware

Now ADB is active, we are going to downgrade the current Flyme OS to a beta version.

Terminal command:

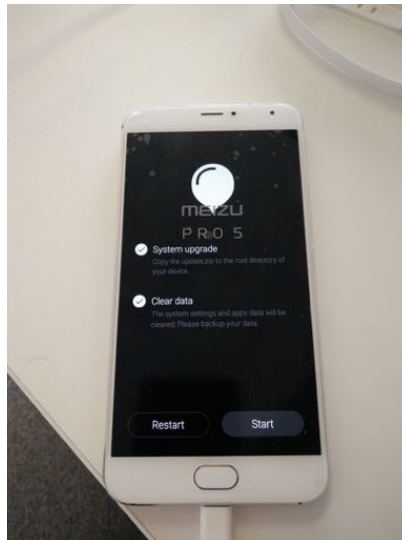
```
1 $ adb push files/beta.zip /sdcard/update.zip
```

```
wouter@ik:~/Downloads/meizu$ adb push files/beta.zip /sdcard/update.zip
7392 KB/s (830271766 bytes in 109.680s)
```

Now we are going to boot to the stock recovery mode.

Terminal command:

```
1 $ adb reboot recovery
```

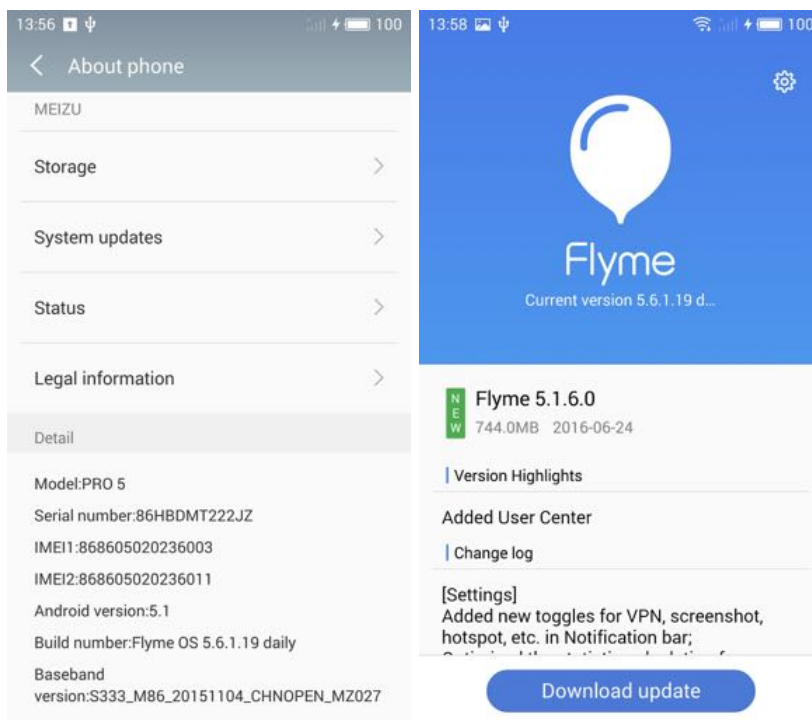


Select System upgrade and Clear data and press Start



Now the beta firmware is going to be installed on the phone.

After the installation the phone will reboot.



After installation the Flyme version is 5.6.1.19 daily

Note: Do NOT press the Download update button!

6 Unlock bootloader

The next step is unlocking the bootloader.



Boot your phone to the fastboot mode. You can see that the phone is still locked. You can do this by typing: `adb reboot fastboot` in the terminal, or pressing the volume down + power button and holding this for some seconds, until the phone reboots.

Terminal command:

```
1 $ adb reboot fastboot
```

6.1 oem unlock

Because we want to load a custom recovery we need to unlock the bootloader. This can be done by the following command.

Terminal command:

```
1 $ fastboot oem unlock
```

```
wouter@ik:~/Downloads/meizu$ fastboot oem unlock
...
OKAY [ 0.004s]
finished. total time: 0.004s
```

The next step is to restart the fastboot mode. This can be done by pressing the volume down + power button and holding this for some seconds until the phone reboots back to fastboot mode.



The bootloader is now unlocked.

6.2 Custom recovery

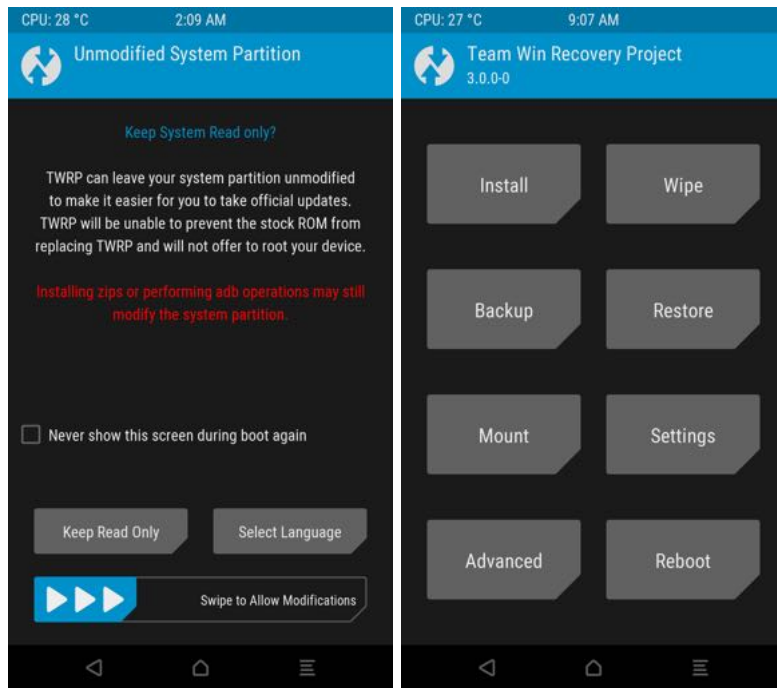
Now that the bootloader is unlocked, we are going to install the custom recovery firmware.

Terminal command:

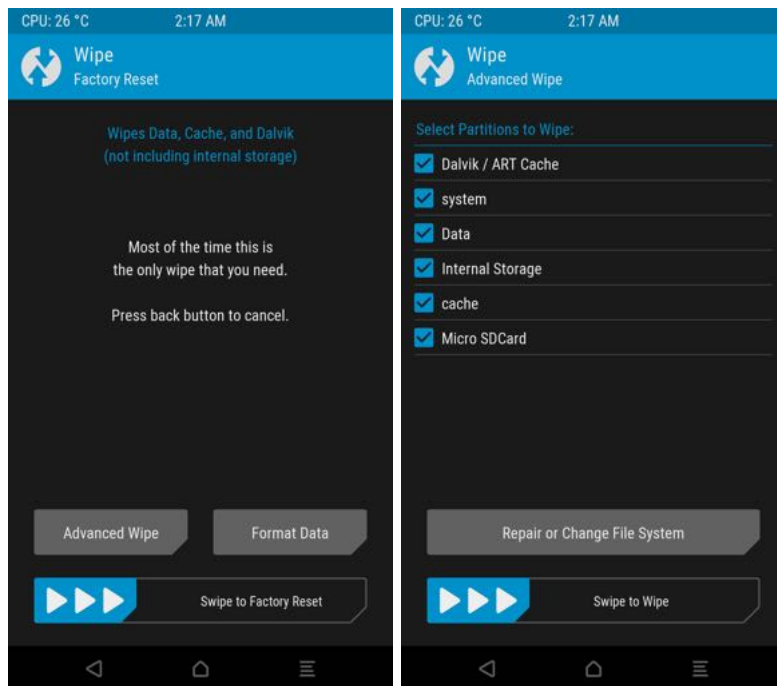
```
1 $ fastboot flash recovery files/TWRP_3.0_m86.img
```

```
Wouter@ik:~/Downloads/meizu$ fastboot flash recovery files/TWRP_3.0_m86.img
sending 'recovery' (23096 KB)...
OKAY [ 0.598s]
writing 'recovery'...
OKAY [ 0.248s]
finished. total time: 0.847s
```

You have to boot the phone to the recovery mode by pressing the volume up + power button until the phone reboots to recovery mode.



We need to wipe the system partition, so swipe the "swipe to allow Modifications" Then press Wipe.



After this you select Advanced wipe, you mark all partitions and you swipe the "Swipe to wipe" button. (after wipe DON'T reboot system)

6.3 Copy all necessary files to phone

Now that all the partitions are wipe, we need to copy all necessary Ubuntu Touch files to a folder on the phone.

Terminal command:

```
1 $ adb push ~/.cache/ubuntuimages/ubuntu-touch/stable/meizu-pd.en/turbo/version-4.tar.xz /sdcard/
1 $ adb push ~/.cache/ubuntuimages/pool/custom-*.tar.xz /sdcard/
1 $ adb push ~/.cache/ubuntuimages/pool/device-*.tar.xz /sdcard/
1 $ adb push ~/.cache/ubuntuimages/pool/ubuntu-*.tar.xz /sdcard/
```

```
wouter@ik:~/Downloads/meizu$ adb push ~/.cache/ubuntuimages/ubuntu-touch/stable
/meizu-pd.en/turbo/version-4.tar.xz /sdcard/
8 KB/s (456 bytes in 0.054s)
wouter@ik:~/Downloads/meizu$ adb push ~/.cache/ubuntuimages/pool/custom-*.tar.xz
/sdcard/
5900 KB/s (71067768 bytes in 11.762s)
wouter@ik:~/Downloads/meizu$ adb push ~/.cache/ubuntuimages/pool/device-*.tar.xz
/sdcard/
5838 KB/s (108043080 bytes in 18.070s)
wouter@ik:~/Downloads/meizu$ adb push ~/.cache/ubuntuimages/pool/ubuntu-*.tar.xz
/sdcard/
7592 KB/s (310492364 bytes in 39.934s)
```

All files are copied to the folder /sdcard/

6.4 Extract files

The next step is to extract all the files on the phone.

Access recovery:

Terminal command:

```
1 $ adb shell
```

```
wouter@ik:~/Downloads/meizu$ adb shell
~ #
```

To make sure all partitions are mounted on the phone use command mount -a.

Terminal command:

```
1 # mount -a
```

To check if all partitions are successfully mounted use command mount. The output must have /system /data /sdcard with RW premission.

Terminal command:

```
1 # mount
```

```
~ # mount
rootfs on / type rootfs (rw)
tmpfs on /dev type tmpfs (rw,nosuid,relatime,mode=755)
devpts on /dev/pts type devpts (rw,relatime,mode=600)
proc on /proc type proc (rw,relatime)
sysfs on /sys type sysfs (rw,relatime)
tmpfs on /tmp type tmpfs (rw,relatime)
/dev/block/sda41 on /system type ext4 (rw,relatime,data=ordered)
/dev/block/sda44 on /data type ext4 (rw,relatime,data=ordered)
/dev/block/sda44 on /sdcard type ext4 (rw,relatime,data=ordered)
/dev/block/sda43 on /cache type ext4 (rw,relatime,data=ordered)
```

To make sure that you are in the root folder use command `cd /`.

Terminal command:

```
1 # cd /
```

Now we are going to extract all files.

Terminal command:

```
1 # tar -xf /sdcard/version-4.tar.xz
```

```
1 # tar -xf /sdcard/custom-*.tar.xz
```

```
1 # tar -xf /sdcard/device-*.tar.xz
```

```
1 # tar -xf /sdcard/ubuntu-*.tar.xz
```

Note: extracting these files could take some time... especially `ubuntu-*.tar.xz`

```
~ # mount
~ # cd /
~ # tar -xf /sdcard/version-4.tar.xz
~ # tar -xf /sdcard/custom-*.tar.xz
~ # tar -xf /sdcard/device-*.tar.xz
~ # tar -xf /sdcard/ubuntu-*.tar.xz
~ #
```

6.5 Flashing last steps

We need to flash: boot.img, logo.bin, ldfw, dtb and recovery, otherwise your phone won't boot.

Terminal command:

```
1 # dd if=/partitions/boot.img of=dev/block/platform/15570000.ufs/by-name/bootimg
1 # dd if=/partitions/logo.bin of=dev/block/platform/15570000.ufs/by-name/bootlogo
1 # dd if=/partitions/dtb of=dev/block/platform/15570000.ufs/by-name/dtb
1 # dd if=/blobs/ldfw of=dev/block/platform/15570000.ufs/by-name/ldfw
1 # dd if=/partitions/recovery.img of=dev/block/platform/15570000.ufs/by-name/recovery
```

Update- Thanks to Liam Zheng. Recovery needs to be flashed to receive and install OTA updates.

```
~ # dd if=/partitions/boot.img of=dev/block/platform/15570000.ufs/by-name/bootimg
41568+0 records in
41568+0 records out
21282816 bytes (20.3MB) copied, 4.674279 seconds, 4.3MB/s
~ # dd if=/partitions/logo.bin of=dev/block/platform/15570000.ufs/by-name/bootlogo
48602+1 records in
48602+1 records out
24884266 bytes (23.7MB) copied, 5.148017 seconds, 4.6MB/s
~ # dd if=/partitions/dtb of=dev/block/platform/15570000.ufs/by-name/dtb
281+1 records in
281+1 records out
143930 bytes (140.6KB) copied, 0.014291 seconds, 9.6MB/s
~ # dd if=/blobs/ldfw of=dev/block/platform/15570000.ufs/by-name/ldfw
2056+0 records in
2056+0 records out
1052672 bytes (1.0MB) copied, 0.084931 seconds, 11.8MB/s
~ # dd if=/partitions/recovery.img of=dev/block/platform/15570000.ufs/by-name/recovery
45320+0 records in
45320+0 records out
23203840 bytes (22.1MB) copied, 5.294926 seconds, 4.2MB/s
~ #
```

Now we need to reboot.

Terminal command:

```
1 # reboot
```

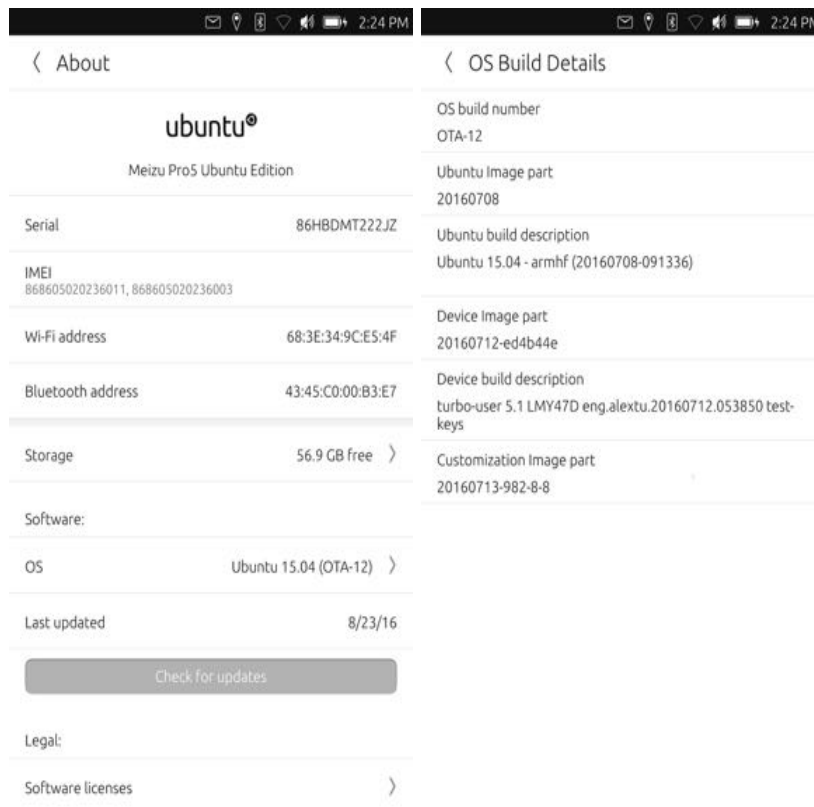
```
~ # reboot
wouter@ik:~/Downloads/meizu$
```

If all went well your phone is going to reboot to Ubuntu phone and your terminal exited adb.

7 Ubuntu Touch



Starting Ubuntu Touch.



Done! You have successfully installed Ubuntu on your Meizu Pro 5 phone!