Guide to install Android into eMMC
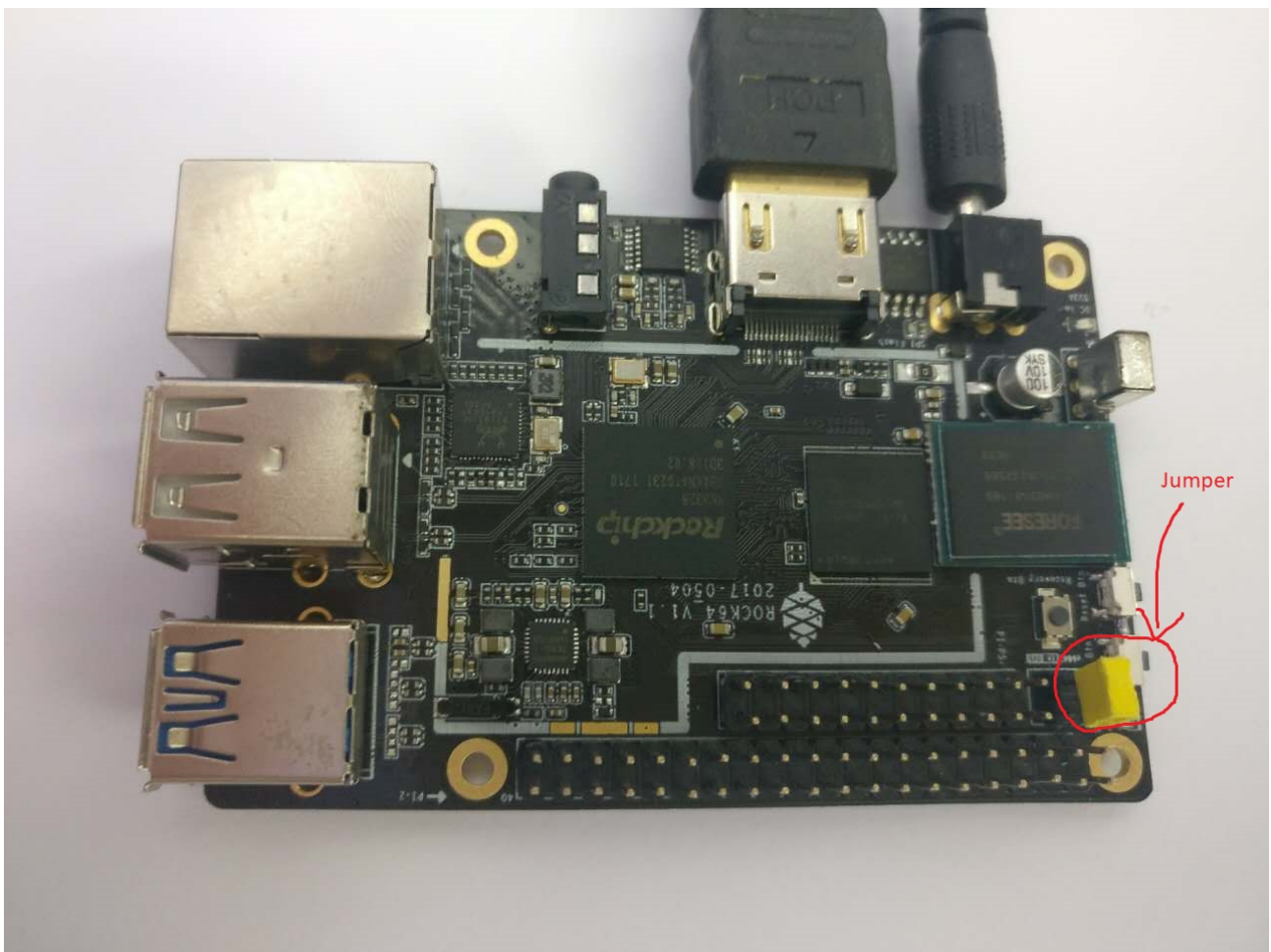
▌Windows 7/8/10 Guide

STEP 01 Download and install the Rockchip Driver and AndroidTool from

http://files.pine64.org/doc/rock64/tools/DriverAssitant_v4.5.zip

http://files.pine64.org/doc/rock64/tools/AndroidTool_Release_v2.38.zip

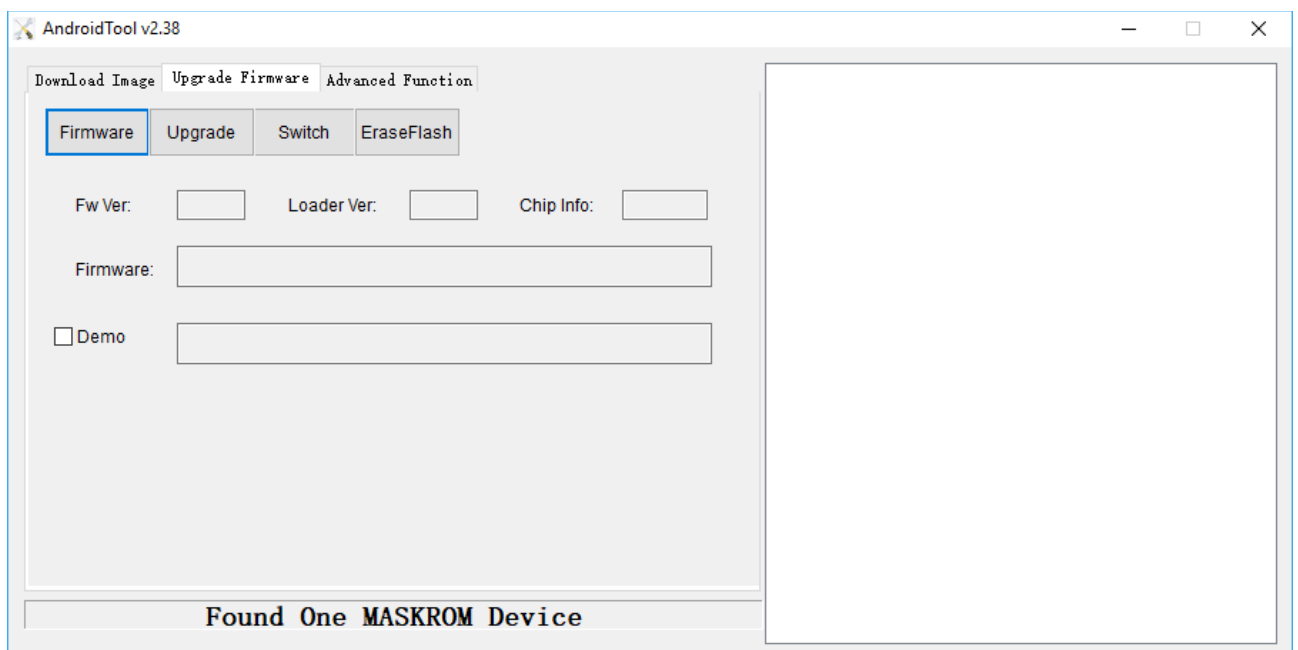**STEP 02** Boot the ROCK64 board into MASKROM mode

1. Install the eMMC and make sure microSD card slot is empty

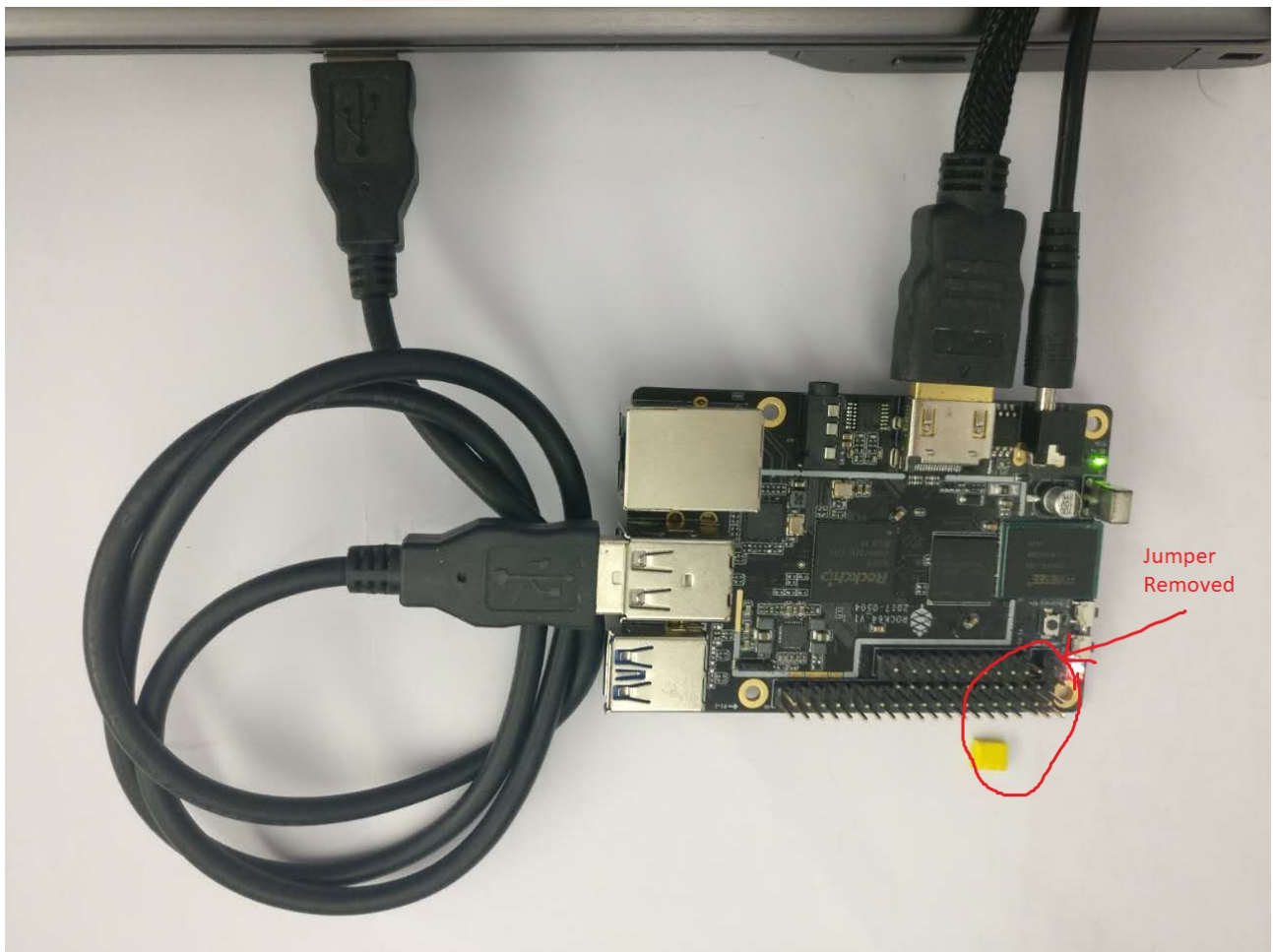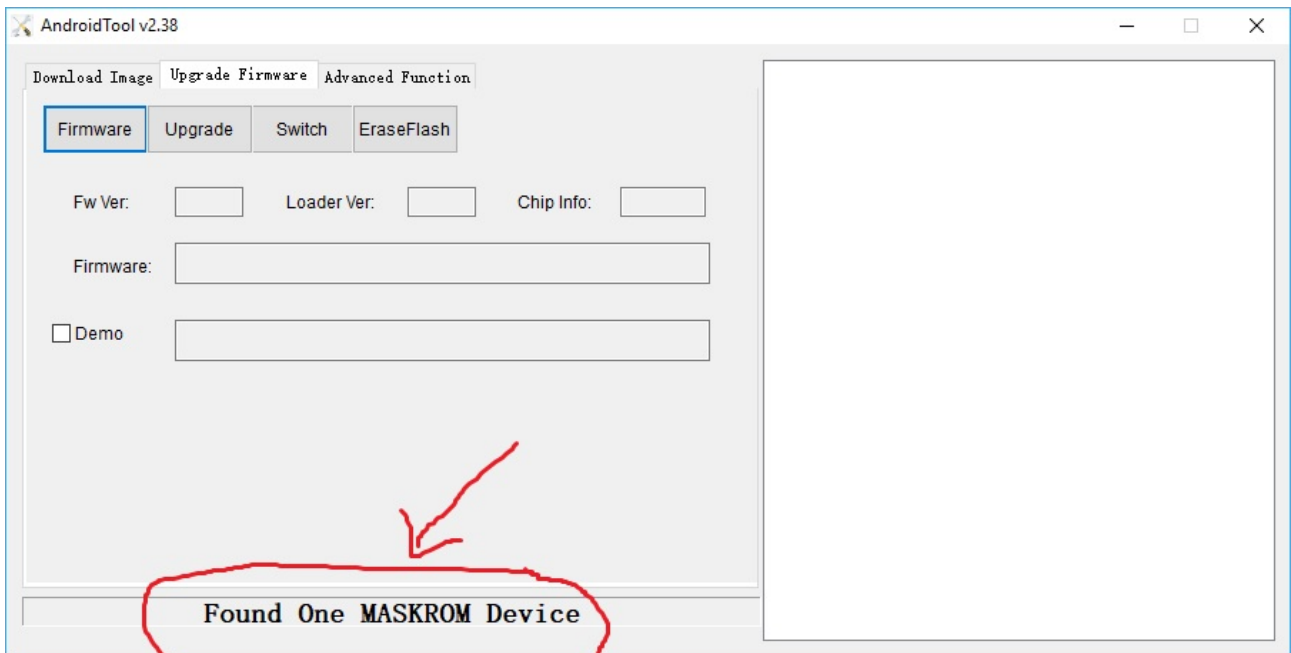2. Shorting the eMMC PIN with a jumper as shown below during power up

3. Connect USB A-to-A cable to upper USB 2.0 port of ROCK64 board and your computer's USB port.

STEP 03 Execute the AndroidTool.exe and select Upgrade Firmware

STEP 04 Remove the jumper from the ROCK64 board after you see the "Found One MASKROM Device" message in AndroidTool.exe
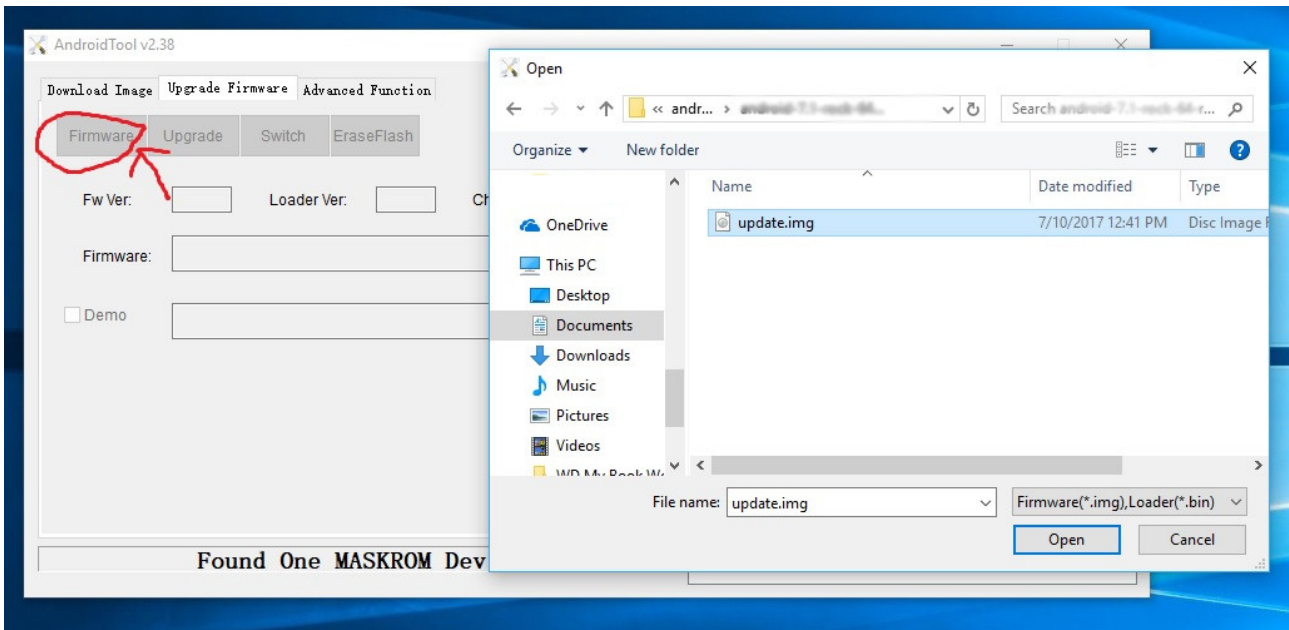
STEP 05 Download Android firmware from ayufan's Android open source repo

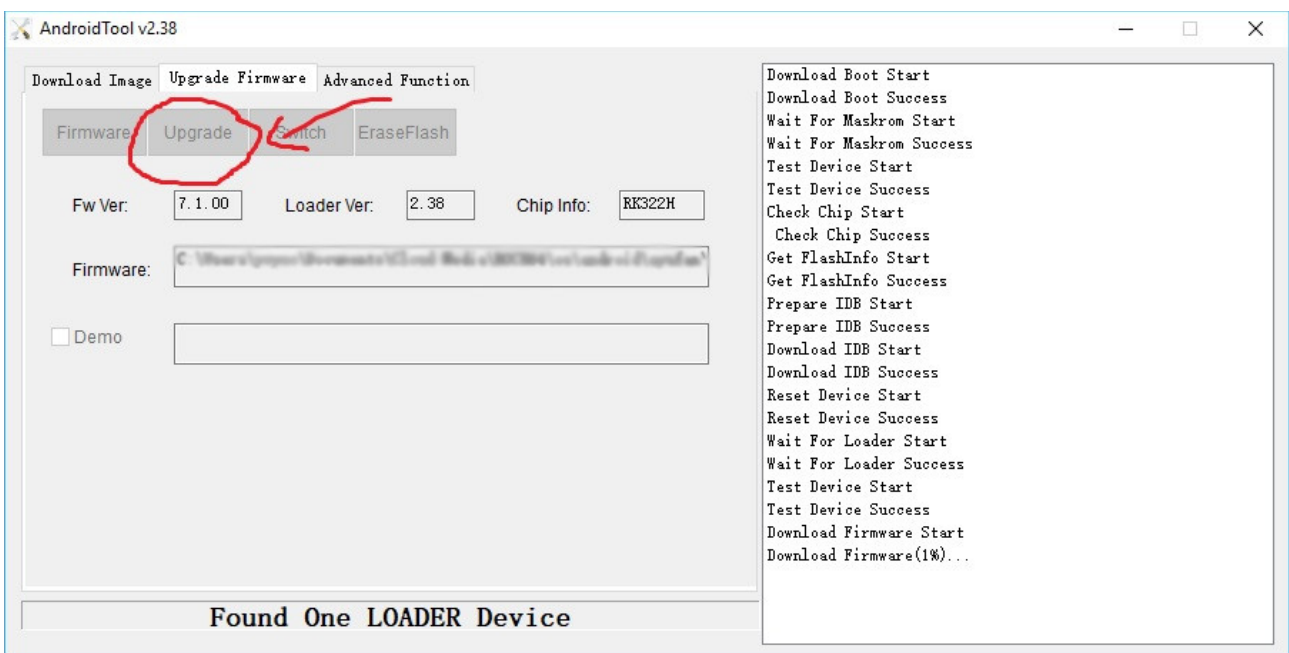https://github.com/ayufan-rock64/android-7.1/releases

Choose the release that have postfix of "-update" like "android-7.1-rock-64-rk3328_box-v0.1.8-r48-update.zip" and unzip into update.img

STEP 06 Flash the firmware using AndroidTool.exe

Click the Firmware section to bring up the File Explorer to select the firmware (update.img)

Click the Upgrade section to start flashing the Android firmware into eMMC

Wait for the ROCK64 board to reboot into Android. Note that first boot up will take some time.

Linux/OSX Guide (special thanks to ayufan)

Prepare device for flashing

1. Compile and install `rkflashtool`:

```
git clone https://github.com/ayufan-rock64/rkflashtool
make -C rkflashtool
sudo make -C rkflashtool install
```

2. Connect USB A-to-A cable to upper USB 2.0 port and your computer,

3. Start ROCK64 board in Loader mode:

   1. Press and hold Recovery Bt
   2. Press Reset Btn,
   3. Stop holding Recovery Btn after 3s.

To verify device:

```
rkflashtool n
...
```

You can also start device in MASKROM mode:

4. Short eMMC PIN (Refer to MASKROM section in Windows 7/8/10 Guide)
5. Start device.

Download release

1. Go to: https://github.com/ayufan-rock64/android-7.1/releases

2. Download and extract one of the releases (without `-update.zip` at end), ex.: ,https://github.com/ayufan-rock64/android-7.1/releases/download/0.1.8/android-7.1-rock-64-rk3328_box-v0.1.8-r48.zip

The releases:

1. Without `-update.zip` are for manual procedure on Linux/OSX,
2. With `-update.zip` are for Android Upgrade Tool for Windows,

Install on Linux/OSX

1. Create an installation script:

```
sudo tee /usr/local/bin/rkinstall <<"EOF"
#!/bin/bash

set -xe

rkflashtool P < parameter.txt
for i in uboot trust misc kernel boot recovery system; do
  rkflashtool w $i < $i.img
done
rkflashtool b
EOF

sudo chmod +x /usr/local/bin/rkinstall
```

2. Execute script from within directory:

```
$ rkinstall
```

Upgrade on Linux/OSX

1. Create upgrade script

```
sudo tee /usr/local/bin/rkupgrade <<"EOF"
#!/bin/bash

set -xe

for i in uboot trust kernel boot recovery system; do
  rkflashtool w $i < $i.img
done

rkflashtool b
EOF

sudo chmod +x /usr/local/bin/rkupgrade
```

2. Execute upgrade script from within directory:

```
$ rkupgrade
```