

Rock Pi

RockPi WiKi

➤ Rock Pi Wiki

➤ <https://wiki.radxa.com/Rockpi4>

➤ Rock Pi Hardware

➤ <https://wiki.radxa.com/Rockpi4/hardware/rockpi4>

➤ Rock Pi Image

➤ <https://wiki.radxa.com/Rockpi4/downloads>



Create Boot SD Card

- Rock Pi Image

 - <https://wiki.radxa.com/Rockpi4/downloads>

- Write Image to SD Card

 - https://wiki.radxa.com/Rockpi4/getting_started

- Etcher Tool

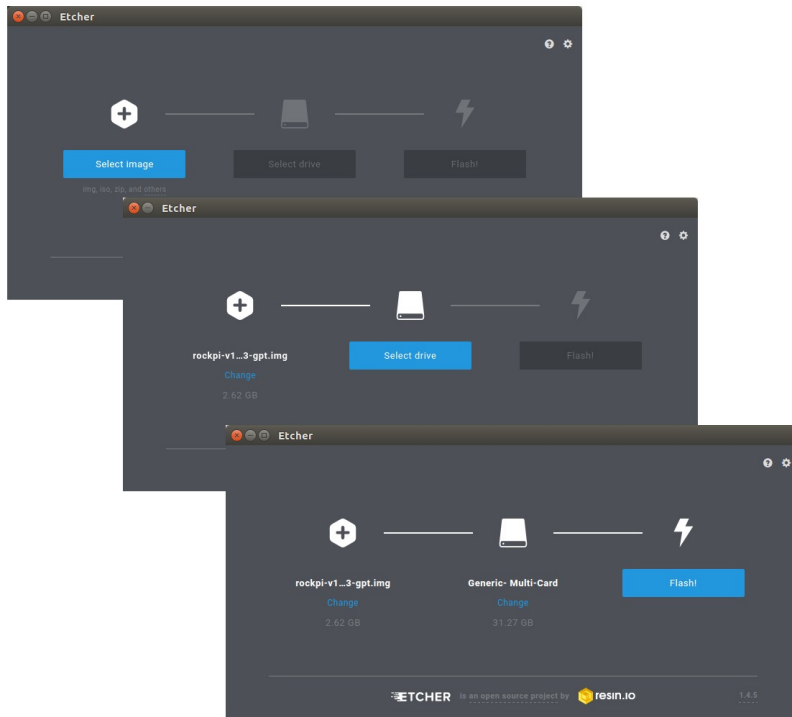
 - Linux -64 bit

 - Linux-32 bit

 - Windows

Update Image

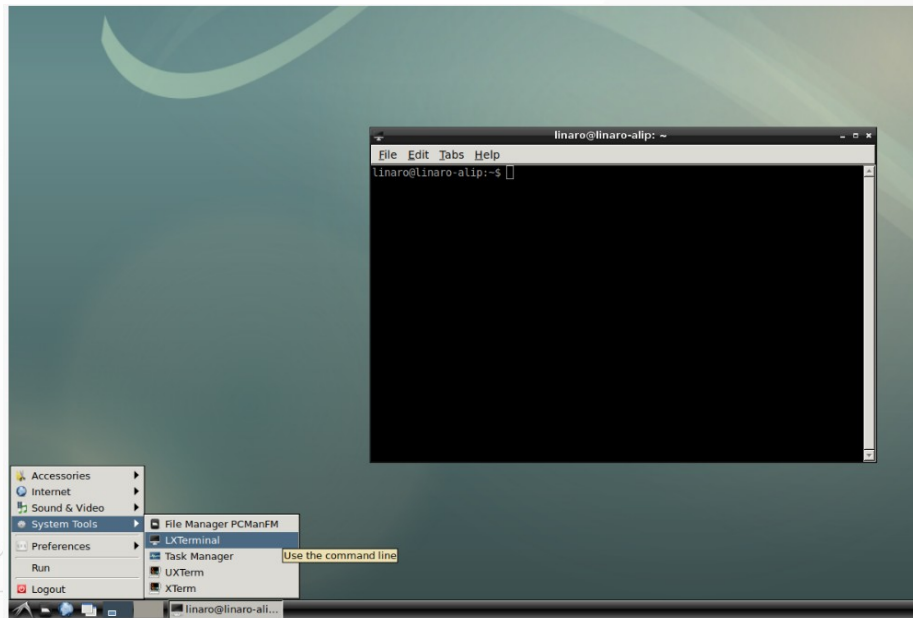
➤ [CMD] ./etcher-etcher-electron-1.4.5



Debian

Rock Pi Debian

<https://wiki.radxa.com/Rockpi4/Debian>



RockPi Develop Data

 <https://wiki.radxa.com/Rockpi4>

Setup/Quick start

- Getting started with your ROCK Pi 4, including what you need and how to get it booted.
- GPIO pinout
- Backup and Restore your SD card or eMMC module
- How to mount SSD with M2 extension board

Installation

Installing an operating system on your ROCK Pi 4, including microSD card, eMMC module, USB drive and M.2 NVME SSD,

- Install Rockchip Flashing tools
- Install image to eMMC from USB OTG Port
- Install on microSD card
- Install on eMMC module
- Install on SPI Flash
- **Install on USB drive(wip)**
- Install on M.2 NVME SSD

> More...

[Expand]

Development

Information about Linux and Android development, this is mostly for developers.

- USB Installation - How to use PC tools to install image on ROCK Pi 4.
- Serial Console - Serial console on GPIO header
- Build Debian - Build and generate Debian image
- Build vendor kernel(Rockchip 4.4) - Build vendor kernel for ROCK Pi 4
- Build Android (nougat) TV - Build Android for ROCK Pi 4
- Build Yocto - Build Yocto for ROCK Pi 4

> More...

[Expand]

Hardware

Technical specifications about the ROCK Pi 4 hardware, including WI-FI, display, camera, etc.

- Blog post from Radxa Team introducing the ROCK Pi hardware design
- ROCK Pi 4 - Introduction of the ROCK Pi 4 hardware
- Display
- Camera module
- Device Tree Overlays - Use other HAT

> More...

[Expand]

Working With Linux

Fundamental Linux usage for beginners and more advanced information for power users.

- Debian Desktop
- Ubuntu Server
- Linux system runs on M.2 NVME SSD
- Radxa APT
- Docker
- Samba

> More...

[Expand]

Working With Android

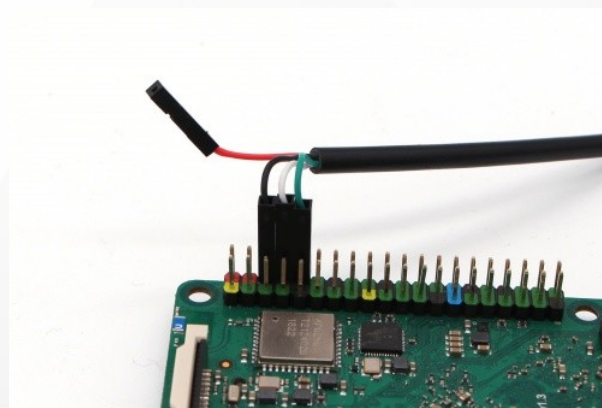
Fundamental Android usage for beginners and more advanced information for power users.

- Android7 Tablet(Support Raspberry Pi official 7" Display)
- Android7 TV
- Android9 Tablet
- Android9 TV
- Android9 Run on M.2 NVME SSD
- Android9 Mraa API
- Android10 Tablet
- Android11
- Solve Google Play Device is not Play Protect certified issue 

Debug Port

Debug Port

ROCK Pi 4	USB to TTL cable
RX(pin 10)	TX
TX(pin 8)	RX
GND(pin 6)	GND



<https://wiki.radxa.com/Rockpi4/dev/serial-console>



Serial Console



Serial setting on host PC

```
baud-rate: 1500000  
data bit : 8  
stop bit : 1  
parity   : none  
flow control: none
```

<https://wiki.radxa.com/Rockpi4/dev/serial-console>

Update

- Linux Kernel
- Linux DeviceTree
- Linux Kernel Modules

<https://wiki.radxa.com/Rockpi4/dev/kernel-4.4>



Update Kernel/DTB - 1

» Build Linux kernel image

» 1. Enter linux kernel source code
[CMD] cd rockpi-kernel

» 2. Create a hide file
[CMD] touch .scmversion

» 3. Build kernel Image
[CMD] make rockchip_linux_defconfig
[CMD] make -j8

Update Kernel/DTB - 2

➤ Package DEB file

➤ Enter linux kernel source code

[CMD] make bindeb-pkg -j8

➤ Transfer below to target board

➤ linux-firmware-image-4.4.154_4.4.154-4_all.deb

➤ linux-image-4.4.154_4.4.154-4_all.deb

➤ linux-libc-dev_4.4.154-4_all.deb

[CMD] scp \${FILE} rock@TARGET_IP:/home/rock/



Update Kernel/DTB - 3

 Below operator in Target Board

[CMD] sudo su

[CMD] dpkg -i linux-firmware-image-4.4.154_4.4.154-4_all.deb

[CMD] dpkg -i linux-image-4.4.154_4.4.154-4_all.deb

[CMD] dpkg -i linux-libc-dev_4.4.154-4_all.deb