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
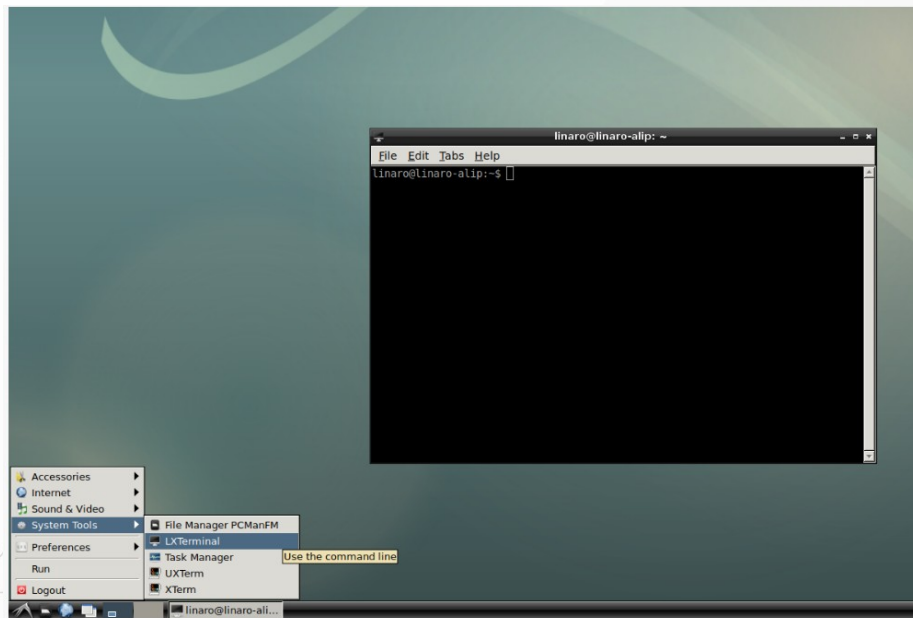
Linux -64 bit

Linux-32 bit

Windows

Update Image

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

Debian

- Rock Pi Debian
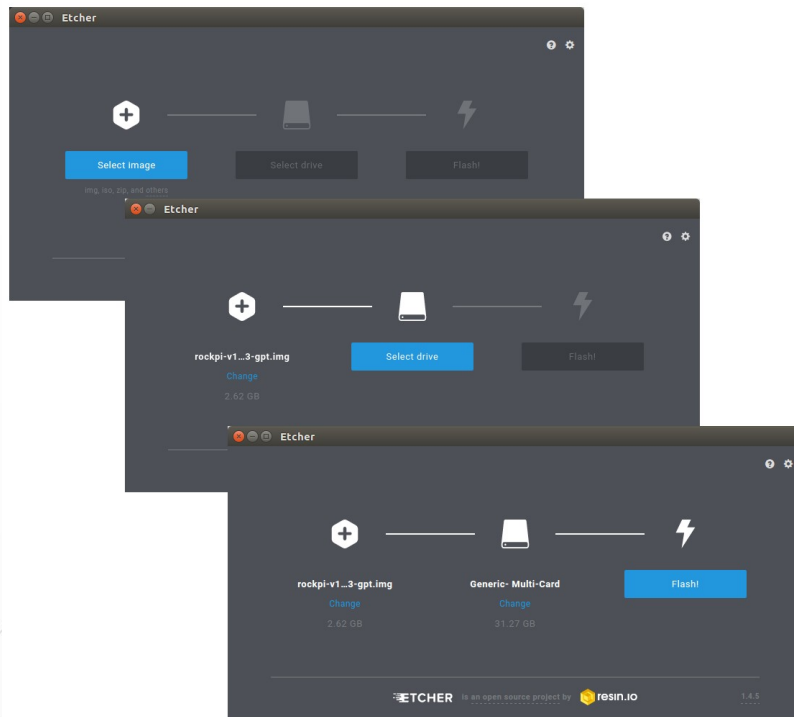
  - https://wiki.radxa.com/Rockpi4/Debian

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
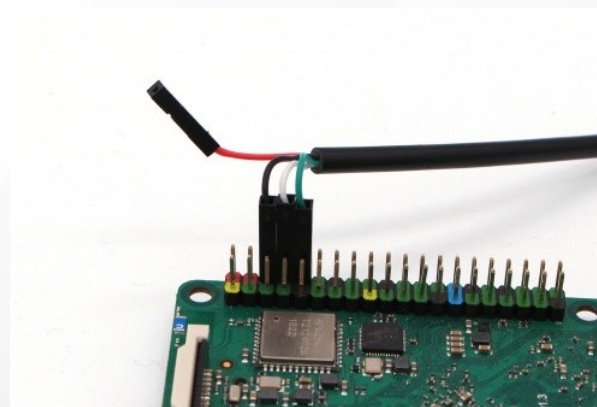
Serial Console

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

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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/

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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