

初识 Raspberry Pi OS Lite

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set up Raspberry
install containerd
install mqtt

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Raspberry Pi OS Lite 基于 Debian 10 32 位版本的精简版，因此debian 下默认使用的命令，绝大部分它都可以使用。

set up Raspberry

设置静态IP

```
1 $ vi /etc/dhcpd.conf
2
3 interface eth0
4 static ip_address=10.8.30.100/24
5 static routes=10.8.30.1
6 static domain_name_servers=114.114.114.114 223.5.5.5 223.6.6.6
7
```

ssh

默认已经安装ssh服务

设置开机自启

```
1 $ systemctl enable ssh
2 Synchronizing state of ssh.service with SysV service script with
  /lib/systemd/systemd-sysv-install.
3 Executing: /lib/systemd/systemd-sysv-install enable ssh
4 Created symlink /etc/systemd/system/ssh.service →
  /lib/systemd/system/ssh.service.
5 Created symlink /etc/systemd/system/multi-
  user.target.wants/ssh.service → /lib/systemd/system/ssh.service.
6
```

安装 vim

```
1 $ apt-get update && apt-get install vim
2
```

时区设置

```
1 $ apt-get install ntpdate
2
3 $ tzselect
4 Please identify a location so that time zone rules can be set
  correctly.
5 Please select a continent, ocean, "coord", or "TZ".
6 1) Africa                      5) Atlantic Ocean
   9) Pacific Ocean
7 2) Americas                    6) Australia
   10) coord - I want to use geographical coordinates.
```

```

8 3) Antarctica                                     7) Europe
   11) TZ - I want to specify the time zone using the Posix TZ
   format.
9 4) Asia                                           8) Indian Ocean
10 #? 4
11 Please select a country whose clocks agree with yours.
12 1) Afghanistan          7) Brunei          13) Hong Kong
   19) Japan              25) Kyrgyzstan   31) Myanmar (Burma)
   37) Qatar              43) Taiwan       49) Vietnam
13 2) Armenia             8) Cambodia       14) India          20)
   Jordan                26) Laos          32) Nepal         38) Russia
   44) Tajikistan        50) Yemen
14 3) Azerbaijan          9) China          15) Indonesia     21)
   Kazakhstan           27) Lebanon       33) Oman          39) Saudi
   Arabia               45) Thailand
15 4) Bahrain             10) Cyprus        16) Iran          22)
   Korea (North)        28) Macau         34) Pakistan     40)
   Singapore            46) Turkmenistan
16 5) Bangladesh         11) East Timor    17) Iraq
   23) Korea (South)    29) Malaysia     35) Palestine
   41) Sri Lanka        47) United Arab Emirates
17 6) Bhutan             12) Georgia       18) Israel        24)
   Kuwait              30) Mongolia     36) Philippines  42)
   Syria               48) Uzbekistan
18 #? 9
19 Please select one of the following time zone regions.
20 1) Beijing Time
21 2) Xinjiang Time
22 #? 1
23
24 The following information has been given:
25
26     China
27     Beijing Time
28
29 Therefore TZ='Asia/Shanghai' will be used.
30 Selected time is now:  Mon Jul 12 17:33:01 CST 2021.
31 Universal Time is now: Mon Jul 12 09:33:01 UTC 2021.
32 Is the above information OK?
33 1) Yes
34 2) No
35 #? 1
36
37 You can make this change permanent for yourself by appending the
   line
38     TZ='Asia/Shanghai'; export TZ
39 to the file '.profile' in your home directory; then log out and
   log in again.
40

```

```
41 Here is that TZ value again, this time on standard output so that
    you
42 can use the /usr/bin/tzselect command in shell scripts:
43 Asia/Shanghai
44
45 $ vi /etc/profile
46
47 TZ='Asia/Shanghai'; export TZ
48
49 $ source /etc/profile
50
51 $ date
52 Mon 12 Jul 17:36:07 CST 2021
```

install containerd

```
1 $ sudo apt-get update
2
3 $ sudo apt-get install \
4     apt-transport-https \
5     ca-certificates \
6     curl \
7     gnupg \
8     lsb-release
```

```
1 $ curl -fsSL https://download.docker.com/linux/debian/gpg | sudo
    gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg
```

```
1 $ echo \
2     "deb [arch=armhf signed-by=/usr/share/keyrings/docker-archive-
3     keyring.gpg] https://download.docker.com/linux/debian \
4     $(lsb_release -cs) stable" | sudo tee
    /etc/apt/sources.list.d/docker.list > /dev/null
```

```
1 $ sudo apt-get update
2 $ sudo apt-get install containerd.io
```

install mqtt

```
1
2
3 wget http://repo.mosquitto.org/debian/mosquitto-repo.gpg.key
4
5 sudo apt-key add mosquitto-repo.gpg.key
```

```
6
7 # sudo wget -P /etc/apt/sources.list.d/
  http://repo.mosquitto.org/debian/mosquitto-jessie.list
8 # sudo wget -P /etc/apt/sources.list.d/
  http://repo.mosquitto.org/debian/mosquitto-stretch.list
9 sudo wget -P /etc/apt/sources.list.d/
  http://repo.mosquitto.org/debian/mosquitto-buster.list
10
11 apt-get update
12
13 apt-get install mosquitto
14
15
```

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