

G V V Sharma*

CONTENTS

- 1 OS Image 1
- 2 Wifi on Armbian Bionic desktop mainline kernel 4.14.y 1

Abstract—This manual provides installing of various softwares in RDP ThinBook Laptop.

1 OS IMAGE

1. Download the Ambian Bionic Desktop OS image (kernel 4.4) from

```
https://www.armbian.com/tinkerboard/
```

and extract the .img file.

2. Burn the image to the sdcard

```
sudo dd if=armbianos.img /dev/sdX bs=4096 status=progress
```

where the sdcard location /dev/sdX can be obtained thorough

```
sudo fdisk -l
```

3. Insert the sdcard with the armbian bionic image in the tinkerboard and power on.
4. Enter login as **root** and password **1234**. Choose a **username** and **password** for yourself. You should boot into the desktop.
5. Set timezone

```
sudo dpkg-reconfigure tzdata
```

- 2 WIFI ON ARMBIAN BIONIC DESKTOP MAINLINE KERNEL 4.14.y

Wifi doesn't work properly with the 4.14 Ubuntu desktop due to **Network Manager**. To resolve this do the following.

1. Install wpagui

```
sudo apt install wpagui
```

2. Remove network manager

```
sudo apt remove network-manager
```

3. Replace interfaces

```
wget ifaces.txt
cp ifaces /etc/network/interfaces
```

4. Open wpa_supplicant configuration file

```
/etc/wpa_supplicant/wpa_supplicant.conf
```

and type the following in the beginning

```
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1
```

5. Add user to group netdev

```
sudo usermod -a -G netdev $USER
```

6. Check wpa_supplicant status

```
sudo systemctl status wpa_supplicant.service
```

If active, do nothing. Else start it

```
sudo systemctl status wpa_supplicant.service
```

7. For giving wpa_supplicant access to wifi network interface,

*The author is with the Department of Electrical Engineering, Indian Institute of Technology, Hyderabad 502285 India e-mail: gadepall@iith.ac.in. All content in this manual is released under GNU GPL. Free and open source.

```
sudo wpa_supplicant -i wlan0 -c  
    /etc/wpa_supplicant/  
    wpa_supplicant.conf -D wext
```

8. Open wpa-gui from application menu. Scan for networks. Select your preferred network and enter the password. Connect. In case connection errors are displayed, reboot.