Armbian on the Tinkerboard

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CONTENTS

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 thorugh

   ```
   sudo fdisk −l
   ```

3. Inserd 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
   ```

6. Get indic fonsts

   ```
   sudo apt install fonts−indic
   ```

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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 https://raw.githubusercontent.com/gadepall
       /resources/master/armbian_tinker/codes/
       ifaces.txt
   cp ifaces /etc/network/interfaces
   ```

4. Open wpa_supplicant configuation 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,

   ```
   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.