

# Getting started with your BeagleY-AI

To get started you need the following:

1. USB type A to type C cable
2. 5V  $\geq$  3A power adapter
3. Micro SD Card
4. Boot media

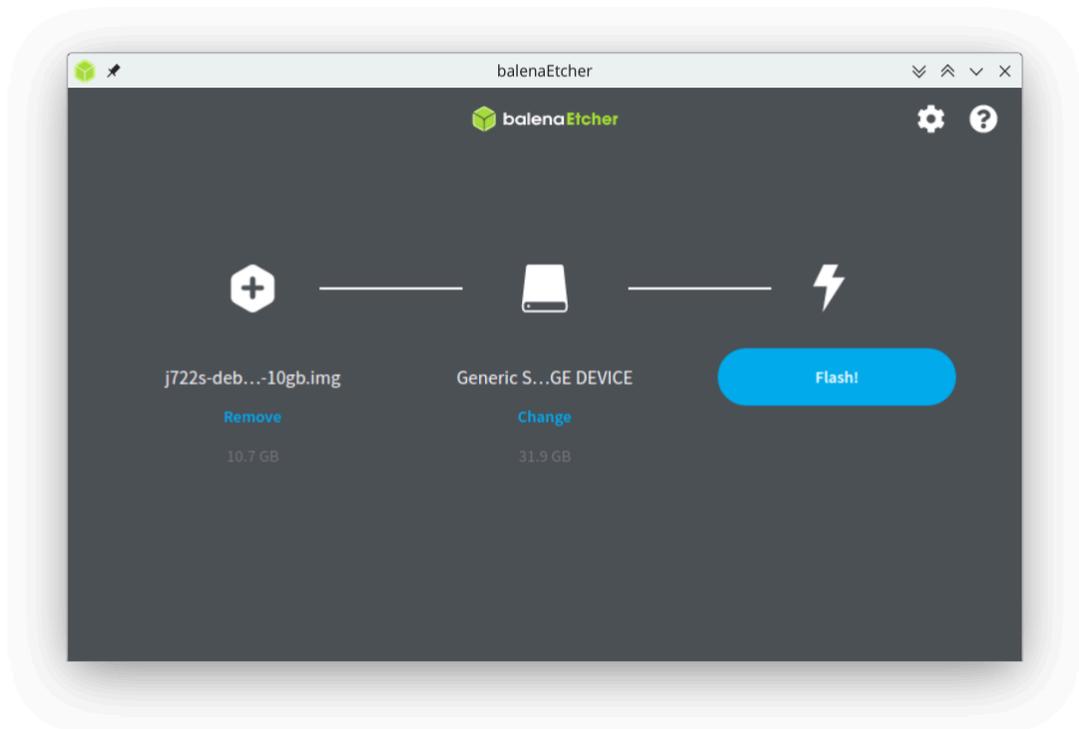
## Boot Media

Download the boot media from the link below:

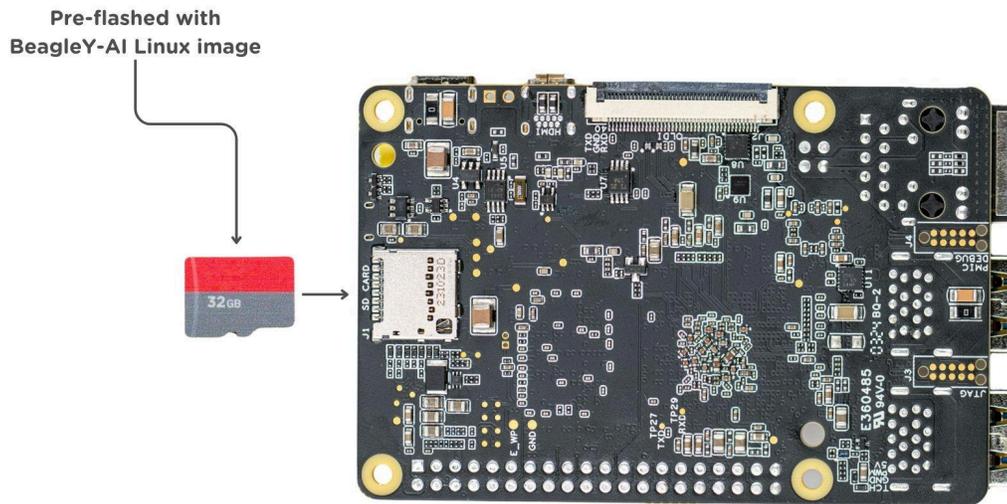
<https://www.beagleboard.org/distros/beagle-y-ai-debian-xfce-12-5-2024-03-25>

and flash it on a micro SD Card using <https://etcher.balena.io/> following these steps:

1. Select downloaded boot media
2. Select SD Card
3. Flash!



Once flashed, you can insert the SD card into your BeagleY-AI as shown in the image below.



## Power supply

To power the board you can either connect it to a dedicated power supply like a mobile charger or wall adapter that can provide  $5V \geq 3A$ . Checkout docs power supply page for recommended power supply:

<https://docs.beagleboard.org/latest/accessories/power-supplies.html#accessories-power-supplies>

## Board connection

There is only one USB type-c port on board, if you choose to use a dedicated power supply you have to access to board via any of the following methods:

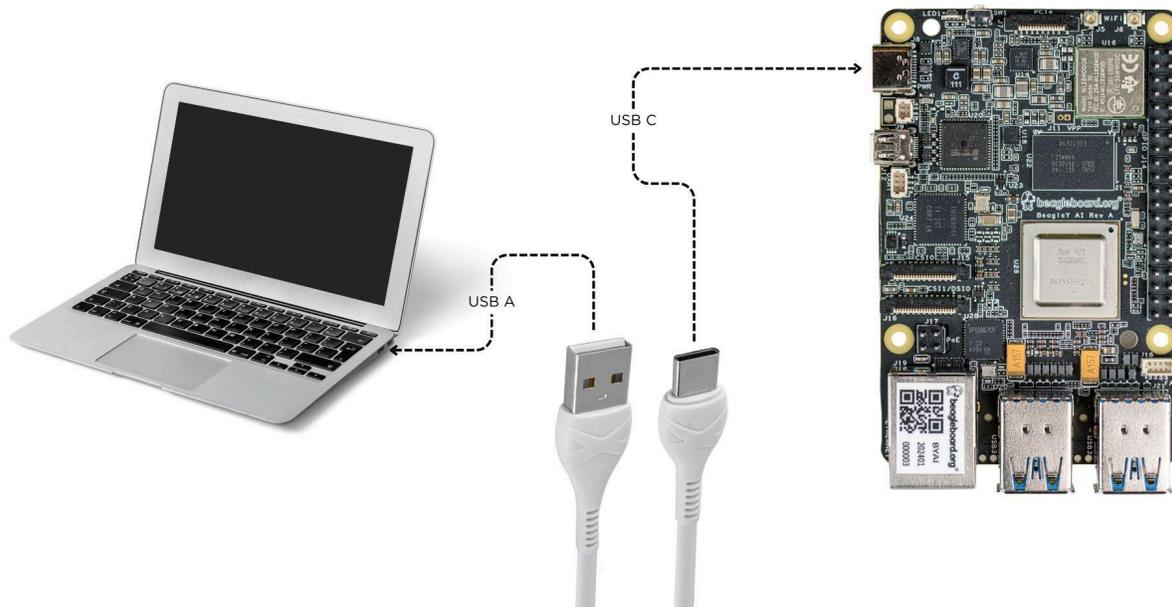
1. HDMI with Keyboard and mice
2. UART using [rpi pico debug probe](#) or similar
3. Ethernet network connection

Another direct and easy option is to connect the board directly to your PC or Laptop using a USB type-a to type-c cable. This is not recommended if you are doing any heavy task on your BeagleY-AI but, for testing this should be fine.

**Note: If you are using the board with a fan or running a heavy task you should always power the board with a dedicated power supply that can supply  $5V \geq 3A$ .**

## USB Tethering

To initially test your board, you can connect the board directly to your computer using a type-a to type-c cable shown in the image below.



After connecting, you should see Power LED glow, and soon just like with other Beagles, you'll see a virtual wired connection on your computer. To access the board you can use `ssh` as shown below.

**Note:** Here you must update the default password to something safer.

```
[lorforlinux@fedora ~] $ ssh debian@192.168.7.2
Debian GNU/Linux 12

BeagleBoard.org Debian Bookworm Xfce Image 2024-03-25
Support: https://bbb.io/debian
default username is [debian] with a one time password of [tempwd]

debian@192.168.7.2's password:
You are required to change your password immediately (administrator enforced).
You are required to change your password immediately (administrator enforced).

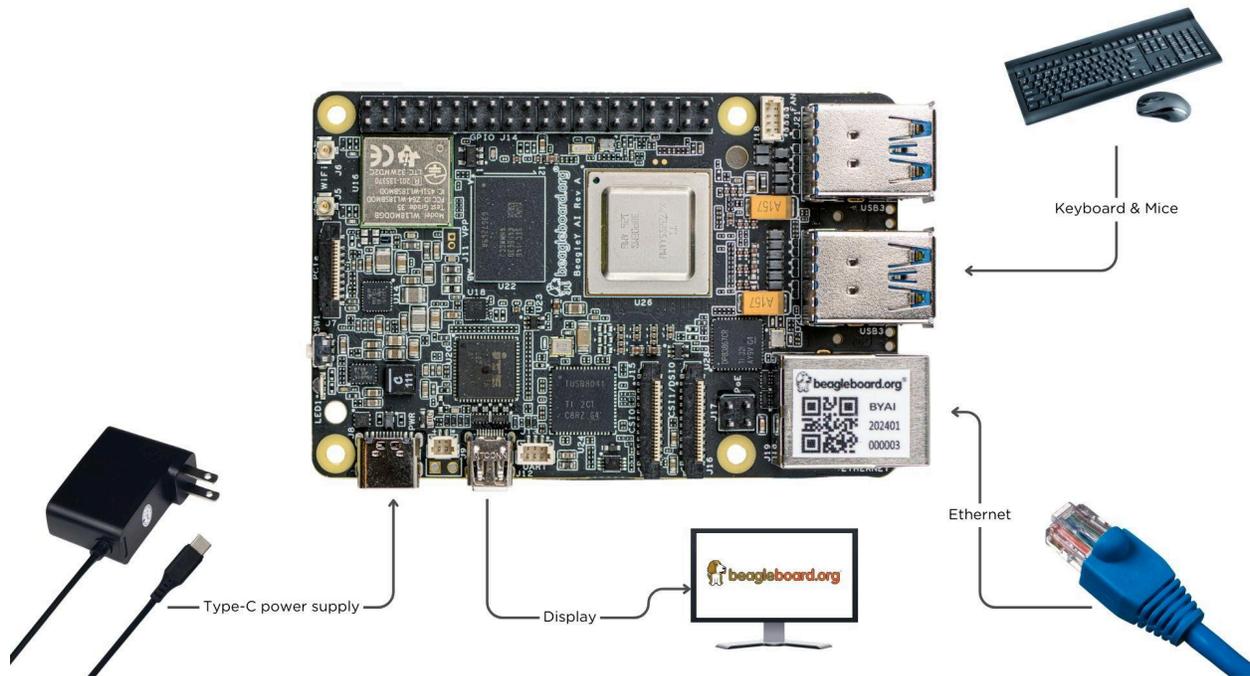
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Mon Mar 25 06:56:39 2024 from 192.168.7.1
WARNING: Your password has expired.
You must change your password now and login again!
Changing password for debian.
Current password: █
```

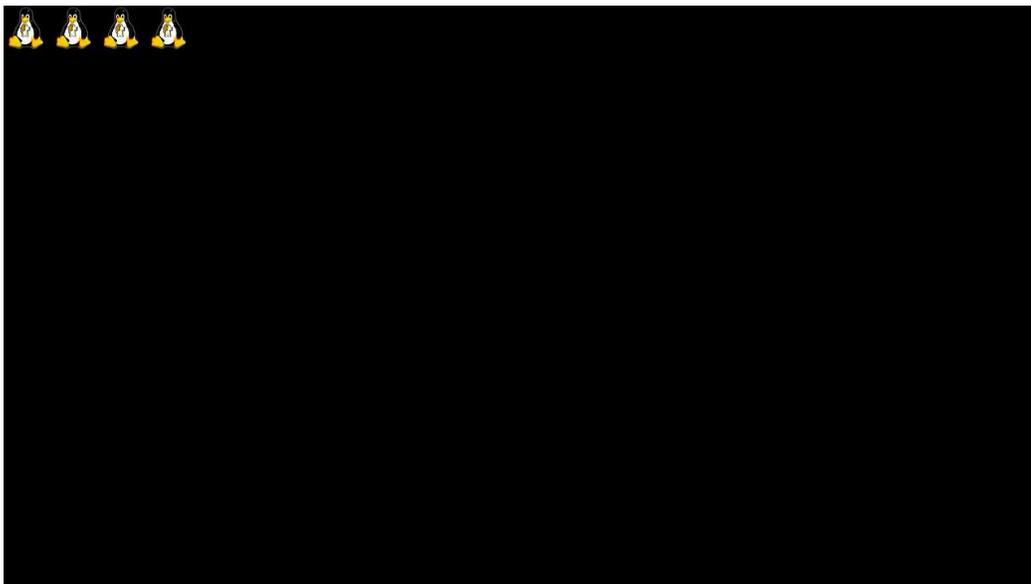
## Using BeagleY-AI

To setup your BeagleY-AI for normal usage, connect the following:

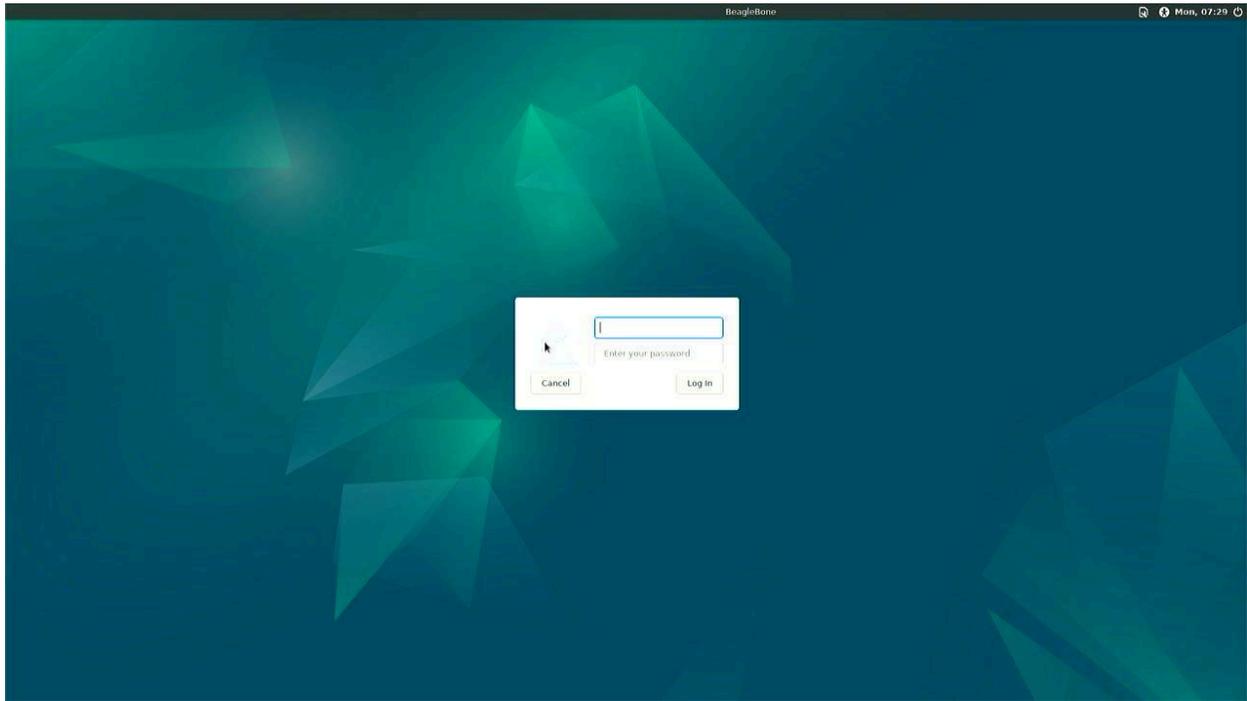
1.  $5V \geq 3A$  power supply
2. HDMI monitor using micro HDMI to full-size HDMI cable
3. Ethernet cable from the board to your router
4. Wireless or wired keyboard & mice



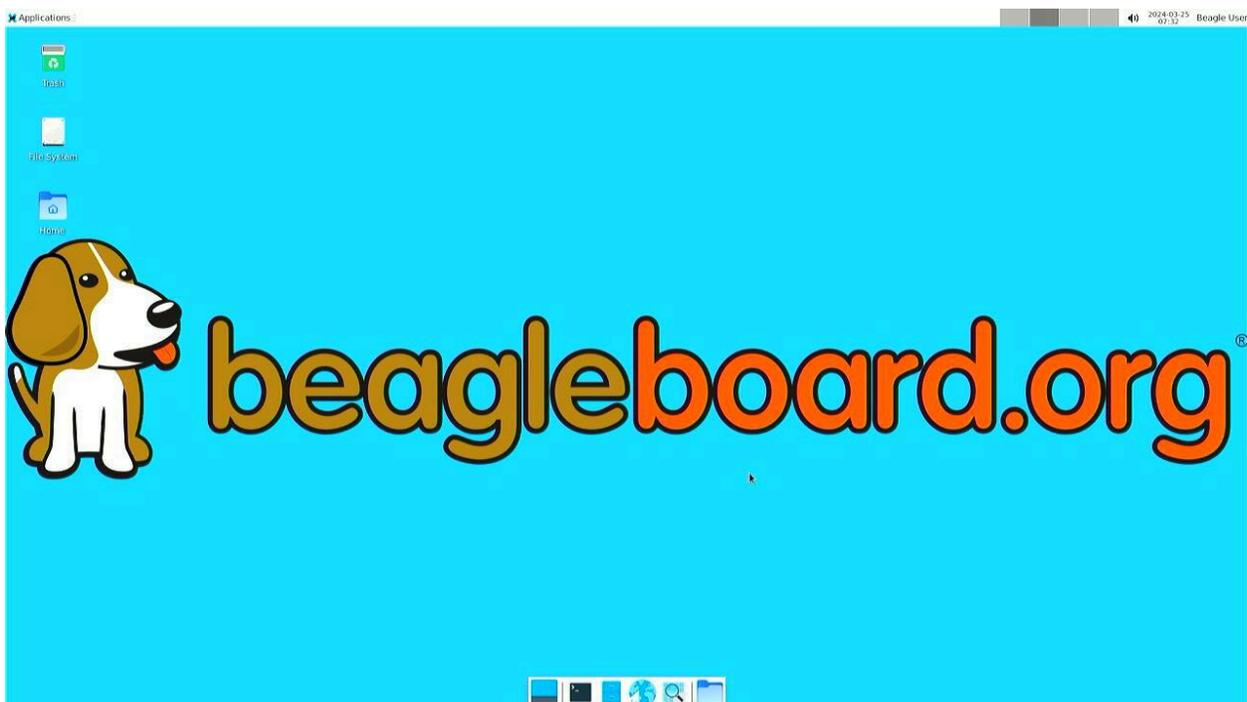
If everything is connected properly you should see four penguins on your monitor.



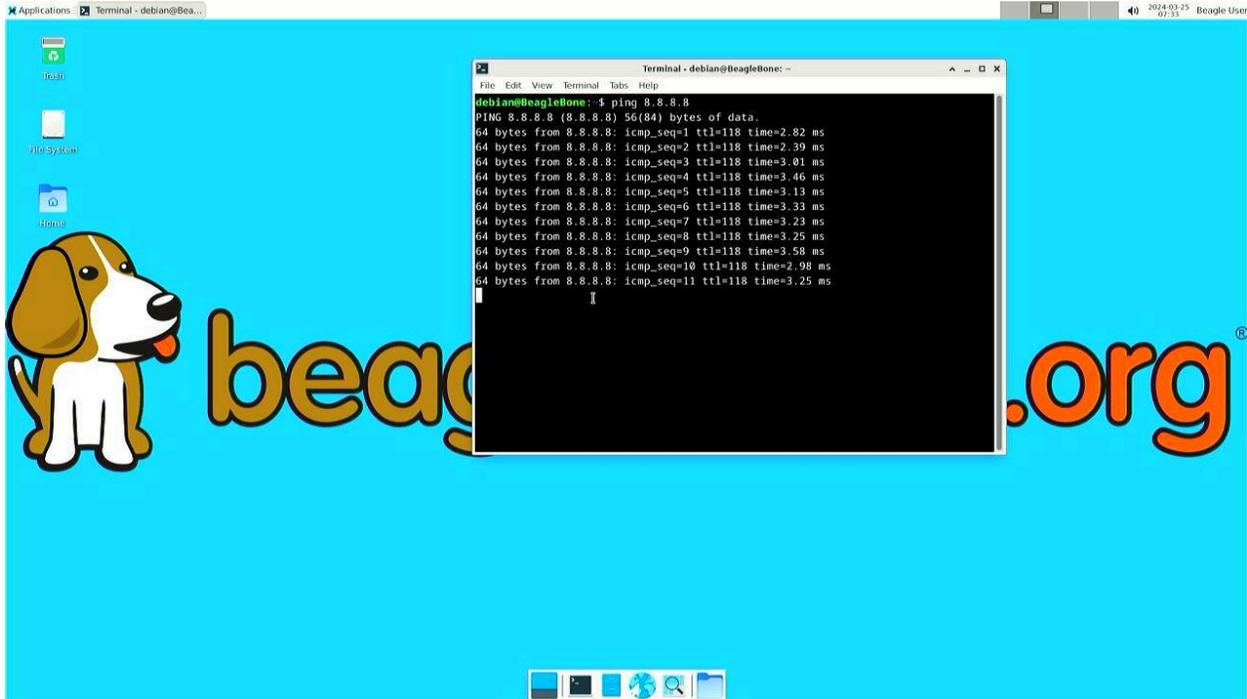
When prompted, log in using the updated login credentials you updated during the USB tethering step.  
**Note: You can not update login credentials at this step, you must update them during USB tethering step!**



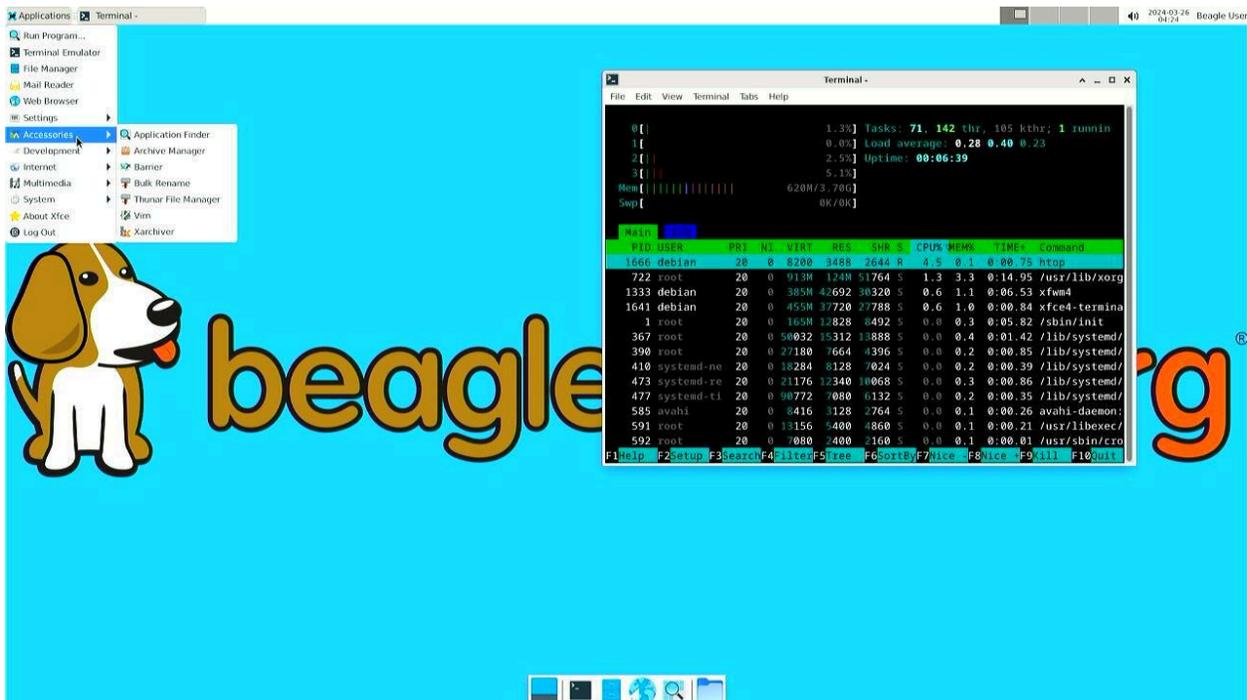
Once logged in you should see the splash screen shown in the image below:



Test network connection by running `ping 8.8.8.8`

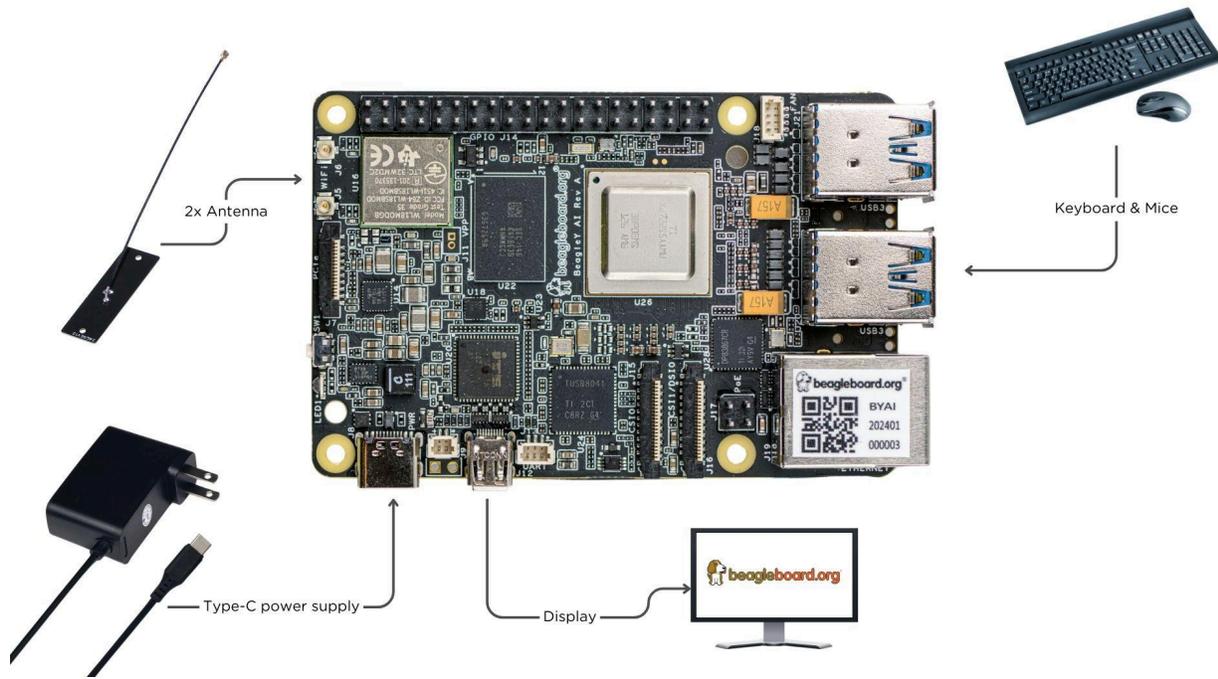


Explore and build with your new BeagleY-AI board!



## Connecting to WiFi

Connect 2x antennas to your BeagleY-AI board if not pre-attached.



After successfully attaching the antenna, power up the board. Once booted you can follow the commands below to connect to any WiFi access point,

1. To list the wireless devices attached, (you should see wlan0 listed)
  - o **iwctl device list**
2. Scan WiFi using,
  - o **iwctl station wlan0 scan**
3. Get networks using,
  - o **iwctl station wlan0 get-networks**
4. Connect to your wifi network using,
  - o **iwctl --passphrase "<wifi-pass>" station wlan0 connect "<wifi-name>"**
5. Check wlan0 status with,
  - o **iwctl station wlan0 show**
6. To list the networks with connected WiFi marked you can again use,
  - o **iwctl station wlan0 get-networks**
7. Test connection with ping command,
  - o **ping 8.8.8.8**

For more information go to [docs.beagleboard.org](https://docs.beagleboard.org)