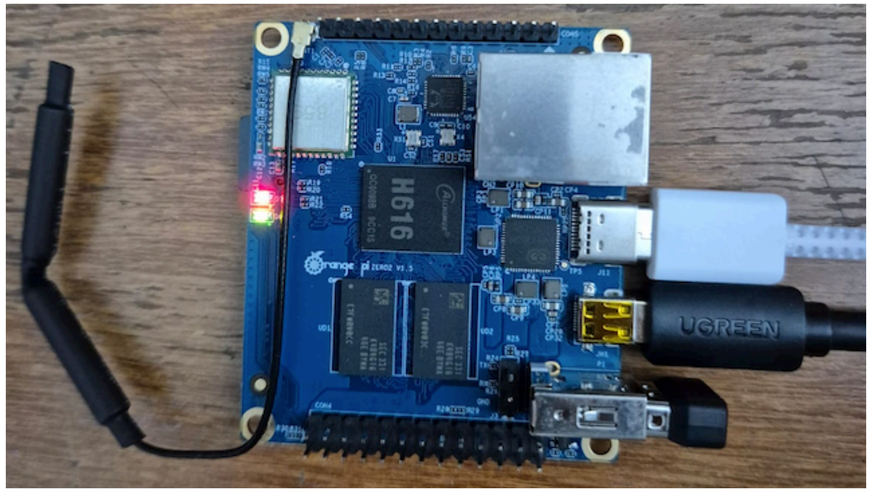
Using Armbian on Orange Pi Zero 2 to Develop / Deploy with the Singkong Programming Language



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singkong.dev

What You'll Need

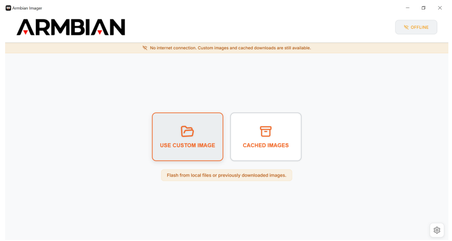
- **An Orange Pi Zero 2 (Allwinner H616):** This tutorial uses the 1GB RAM model**.**
- **A microSD card:** This tutorial uses a Class 10 A1 16GB model.
- **A USB Type-C cable and adapter:** for powering the Orange Pi.
- **A computer:** Running any OS capable of flashing an Armbian image to a microSD card. This tutorial uses Windows 10 and Armbian Imager.
- **A wireless keyboard and mouse combo:** Highly recommended, as the Orange Pi Zero 2 has only one USB port available. This is necessary for interacting with the board during installation, configuration, and software development (Note: This is separate from the input devices used for your main computer).
- **A micro HDMI cable and display:** Necessary to connect the Orange Pi to a monitor or TV. The same display used by the computer can be shared by switching the input source.

Downloading the Armbian Disk Image

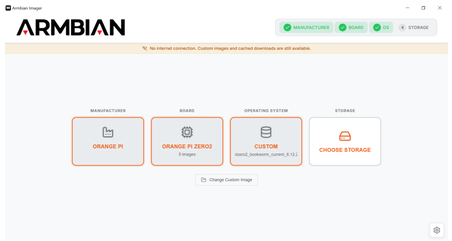
- **Visit:** armbian.com
- **Search:** Look for "Orange Pi Zero 2".
- **Select:** Download the minimal image: Armbian_25.5.1_Orangepizero2_bookworm_current_6.12.23_minimal.img.xz

Flashing the Armbian Disk Image

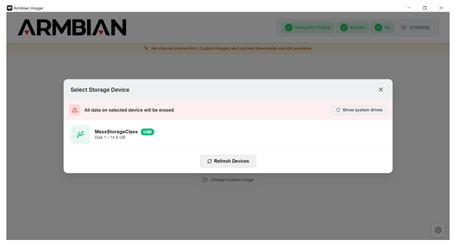
- Insert the microSD card: Plug the card into your computer.
- Run Armbian Imager: Select the downloaded file (use custom image), choose the microSD card, and click Erase & Flash to begin. Unplug the card once the process is complete.

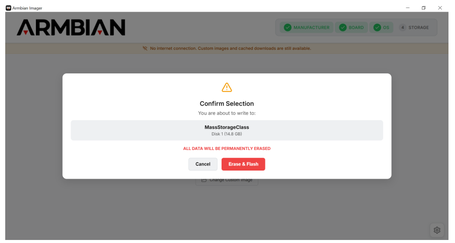


Use Custom Image

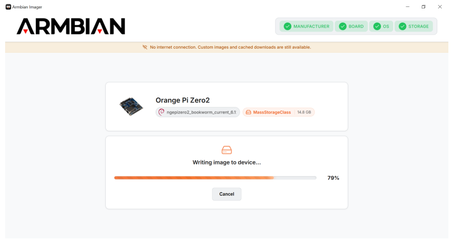


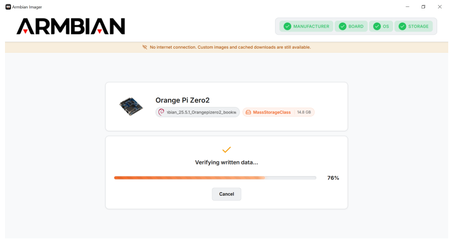
Choose Storage

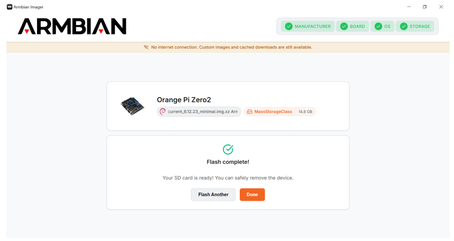




Erase & Flash







Done

Booting from the microSD Card

- **Power Off:** Ensure the Orange Pi is completely shut down.
- **Insert:** Slide the prepared microSD card into the slot.
- **Connect the display:** Connect the micro HDMI cable to the Orange Pi and your monitor/TV.
- **Power On:** Connect the USB Type-C power supply to boot.

Completing the Setup

Carefully complete every prompt to ensure your system is configured correctly.

```
Create root password:
```

```
Please provide a username (eg. your first name):
```

```
Create user (<user>) password:
```

```
Please provide your real name:
```

```
Connect via wireless? [Y/n]
Enter a number of SSID:
Enter a password for <SSID>:
```

a network connection is **required** to complete the system configuration.

```
Set user language based on your location [Y/n]


...
```

```
Choose your language, country, and timezone


to ensure your system is configured for your region.
```

Installing Required Software

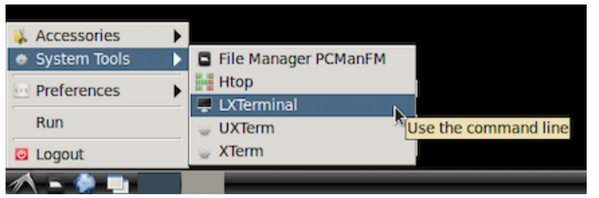
Follow the steps below to prepare your environment.

- **Note:** Ensure you are at the root prompt (indicated by a # symbol) before running these commands.

```
apt-get update
apt-get install xorg lightdm lxde default-jdk
systemctl set-default graphical.target
reboot
```

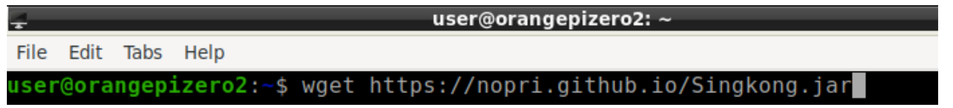
After the reboot: You will see a graphical login screen. Log in with the user account you created during initial setup.

- **After logging in**:
  - Open the terminal: Click the Launcher > System Tools > LXTerminal.



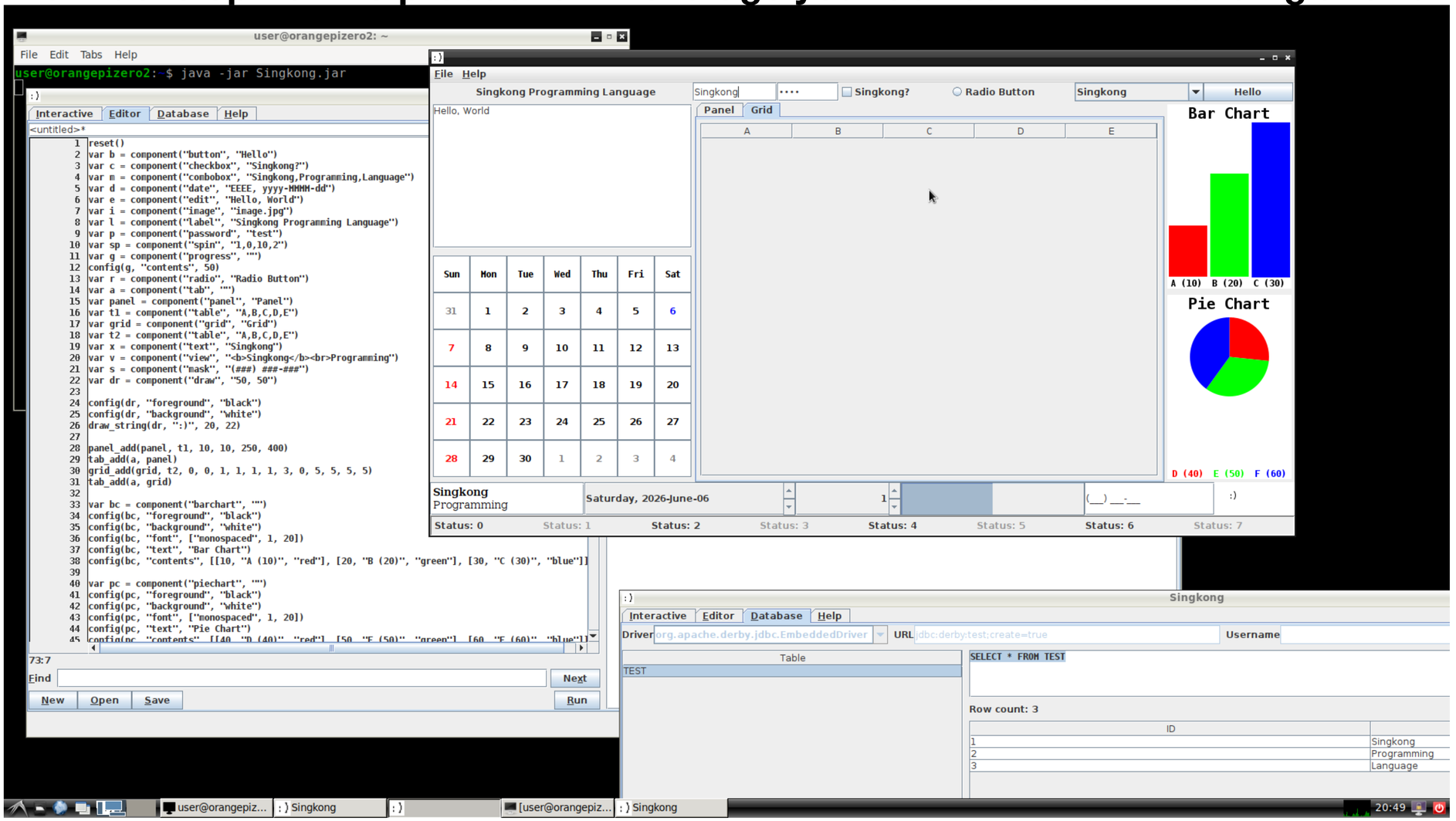
  - Run the following command in the Terminal window to download Singkong.

```
wget https://nopri.github.io/Singkong.jar
```



Singkong in Action

From development to production—leverage your device for both building and running your projects.



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