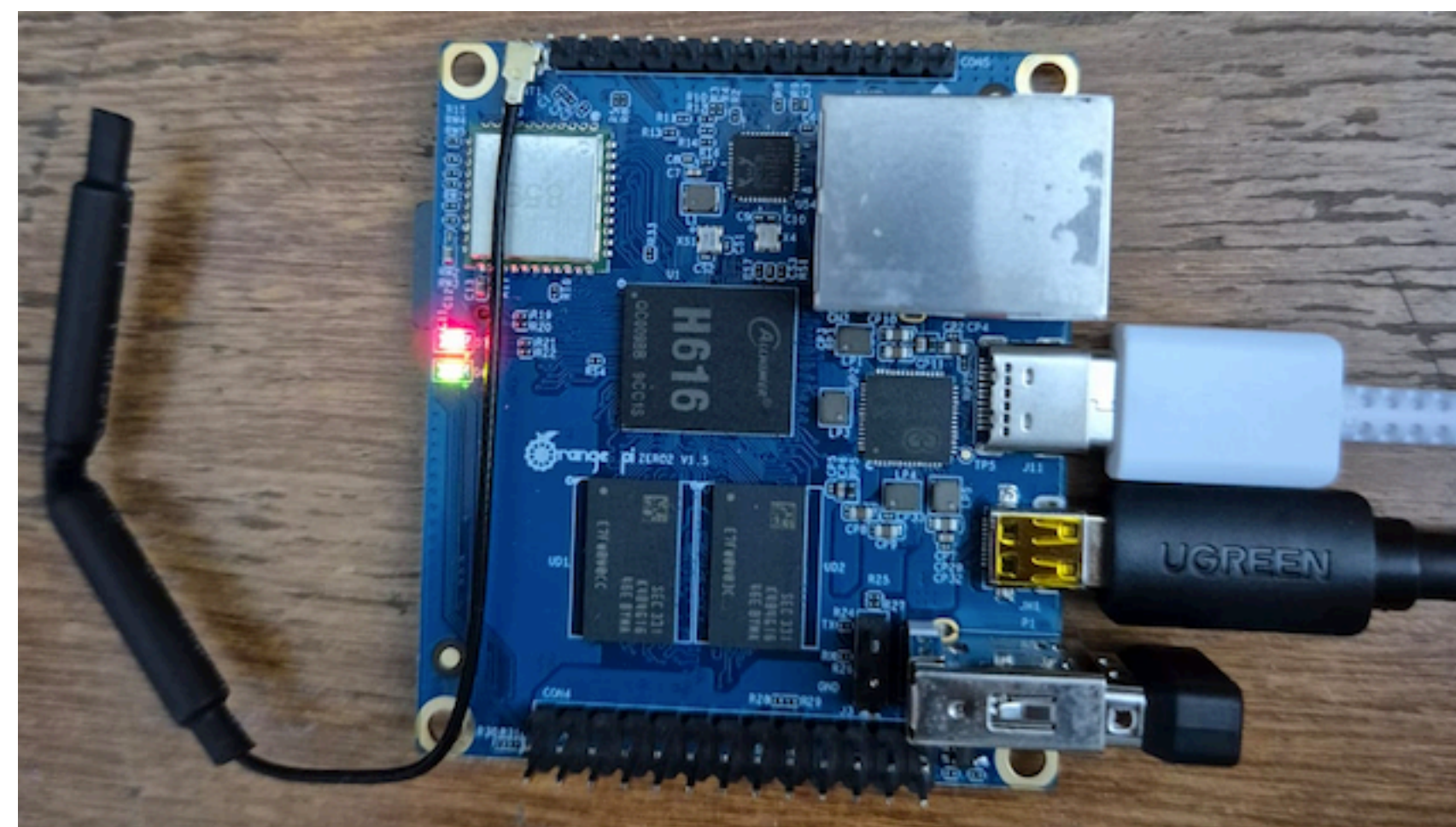


Using Armbian on Orange Pi Zero 2 to Develop / Deploy with the Singkong Programming Language



Noprianto

2026-06-07

singkong.dev

What You'll Need

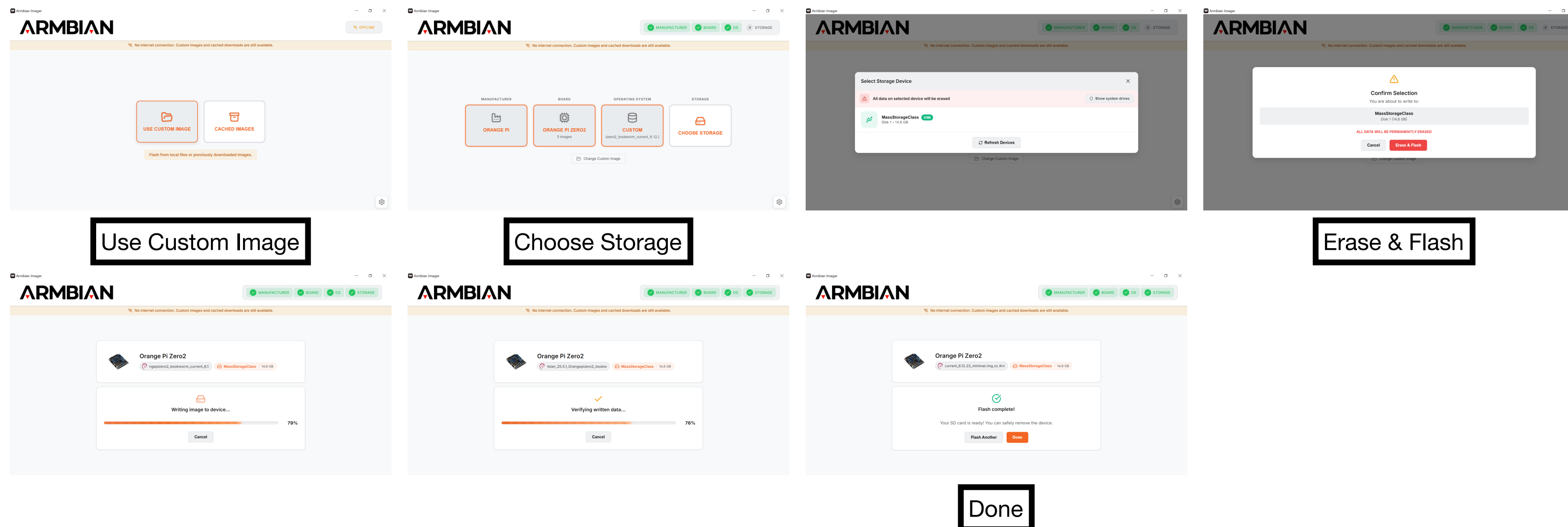
- **An Orange Pi Zero 2 (Allwinner H616):** This tutorial uses the 1GB RAM model.
- **A microSD card:** This tutorial uses a Class 10 A1 16GB model.
- **A USB Type-C cable and adapter:** for powering the Orange Pi.
- **A computer:** Running any OS capable of flashing an Armbian image to a microSD card. 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.



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:
```

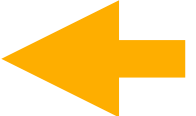
```
Connect via wireless? [Y/n]  
Enter a number of SSID:  
Enter a password for <SSID>:
```

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.

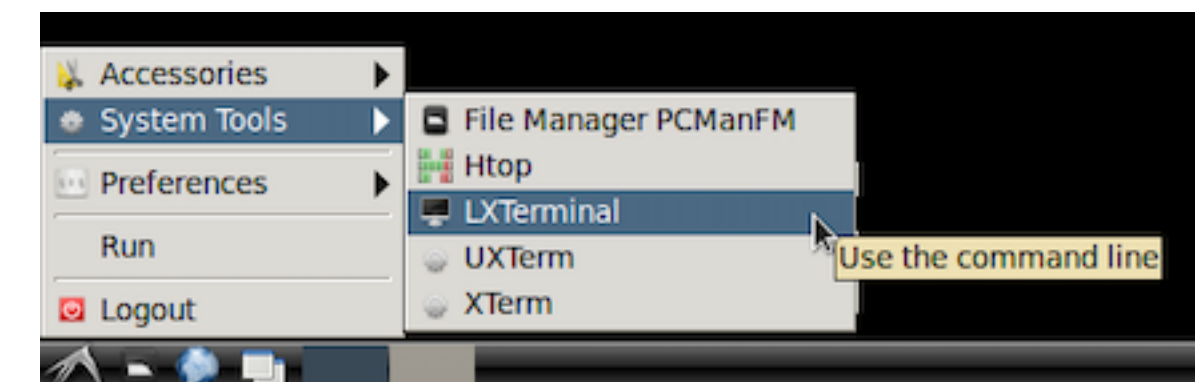
- **Note:** Ensure you are at the root prompt (indicated by a # symbol) before running these commands.

```
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.

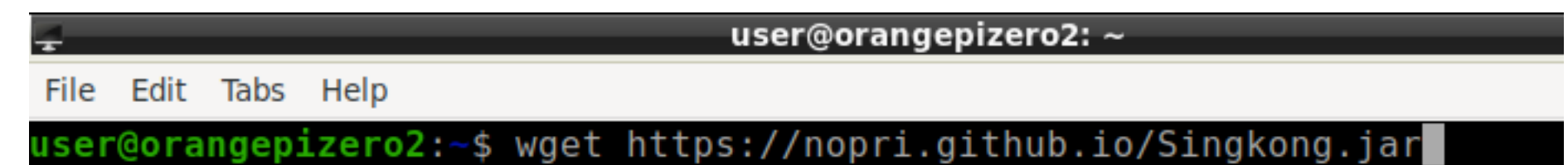
- **After logging in:**

- 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.

Built in collaboration with Google Gemini for presentation polishing and editorial layout.

The screenshot shows the Singkong IDE interface with a Java code editor on the left and a graphical user interface on the right. The code defines a window titled "Singkong Programming Language" containing a text area with "Hello, World", a grid, a bar chart, and a pie chart. The bar chart shows three bars: A (10), B (20), and C (30). The pie chart shows three segments: D (40), E (50), and F (60). The IDE also includes a database viewer at the bottom right showing a table named "TEST" with three rows.

```
1 reset()
2 var b = component("button", "Hello")
3 var c = component("checkbox", "Singkong?")
4 var m = component("combobox", "Singkong Programming Language")
5 var d = component("date", "EEEE, yyyy-MM-dd")
6 var e = component("edit", "Hello, World")
7 var i = component("image", "image.jpg")
8 var l = component("label", "Singkong Programming Language")
9 var p = component("password", "test")
10 var sp = component("spin", "1,0,10,2")
11 var g = component("progress", "")
12 config(g, "contents", 50)
13 var r = component("radio", "Radio Button")
14 var a = component("tab", "")
15 var panel = component("panel", "Panel")
16 var t1 = component("table", "A,B,C,D,E")
17 var grid = component("grid", "Grid")
18 var t2 = component("table", "A,B,C,D,E")
19 var x = component("text", "Singkong")
20 var v = component("view", "<b>Singkong</b><br>Programming")
21 var s = component("mask", "(##) ##-###")
22 var dr = component("draw", "50, 50")
23
24 config(dr, "foreground", "black")
25 config(dr, "background", "white")
26 draw_string(dr, ":)", 20, 22)
27
28 panel_add(panel, t1, 10, 10, 250, 400)
29 tab_add(a, panel)
30 grid_add(grid, t2, 0, 0, 1, 1, 1, 1, 3, 0, 5, 5, 5, 5)
31 tab_add(a, grid)
32
33 var bc = component("barchart", "")
34 config(bc, "foreground", "black")
35 config(bc, "background", "white")
36 config(bc, "font", ["monospaced", 1, 20])
37 config(bc, "text", "Bar Chart")
38 config(bc, "contents", [[10, "A (10)", "red"], [20, "B (20)", "green"], [30, "C (30)", "blue"]])
39
40 var pc = component("piechart", "")
41 config(pc, "foreground", "black")
42 config(pc, "background", "white")
43 config(pc, "font", ["monospaced", 1, 20])
44 config(pc, "text", "Pie Chart")
45 config(pc, "contents", [[40, "D (40)", "red"], [50, "E (50)", "green"], [60, "F (60)", "blue"]])
```

Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

ID	Content
1	Singkong
2	Programming
3	Language