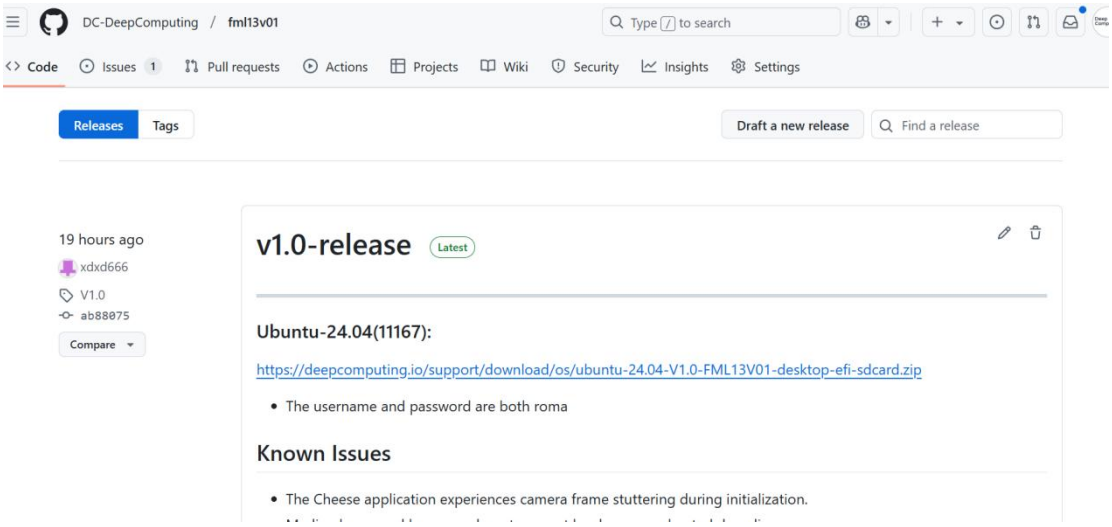
Ubuntu 24.04 Installation on the DC-ROMA RISC-V Mainboard

The DC-ROMA RISC-V Mainboard is the first RISC-V-based mainboard designed for the Framework Laptop 13, developed by DeepComputing. This guide will walk you through the process of installing Ubuntu Desktop 24.04 onto the mainboard.

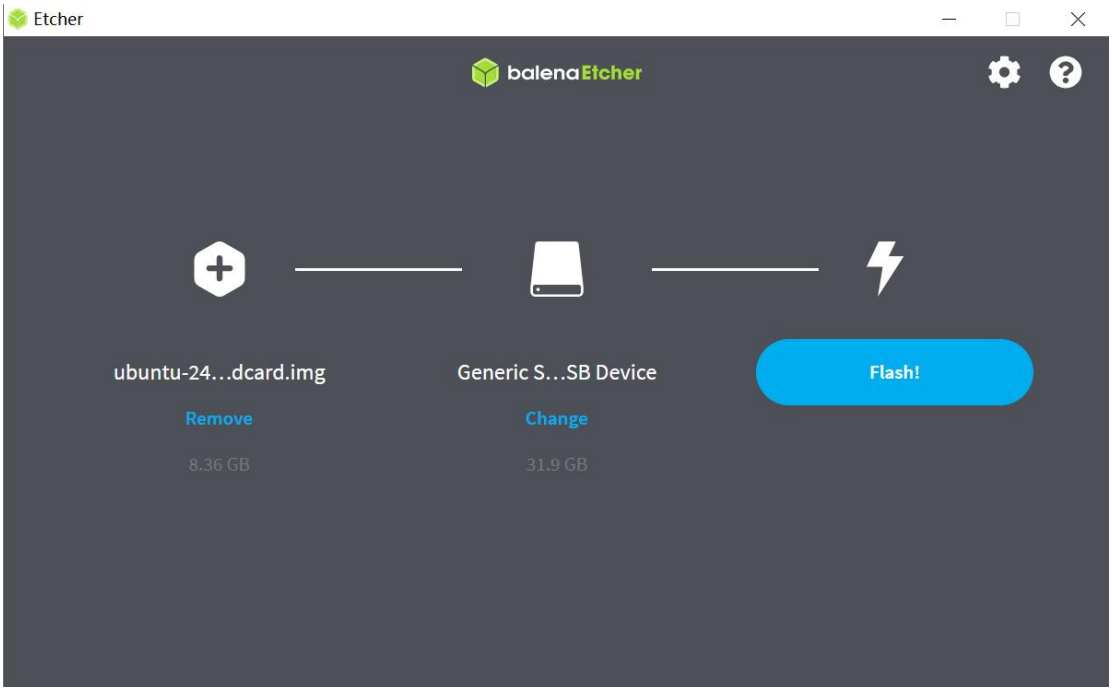
Since the operating system needs to be installed on a TF card, you will first need to flash the Ubuntu 24.04 image onto a TF card using another laptop. Next, you will dismantle the Framework Laptop and install the TF card onto the mainboard.

Step 1 Preparing Ubuntu Installation Media

- Start by downloading the RISC-V-based Ubuntu24.04 image file from the DeepComputing support site.



- Download balenaEtcher as a tool to create the USB installer from the ISO. balenaEtcher is available for Windows, MacOS, and Linux. You can either install it or download the portable version that runs directly from the executable.
- Launch balenaEtcher. Insert the card reader and have a TF card with more than 32GB on the card reader. Click on "Flash from file" and select the Ubuntu-24.04.iso that you downloaded. Click on "Select target" and choose your card reader. Click "Flash" and wait a minute or two for it to complete.



Step 2 Shut down the Framework Laptop

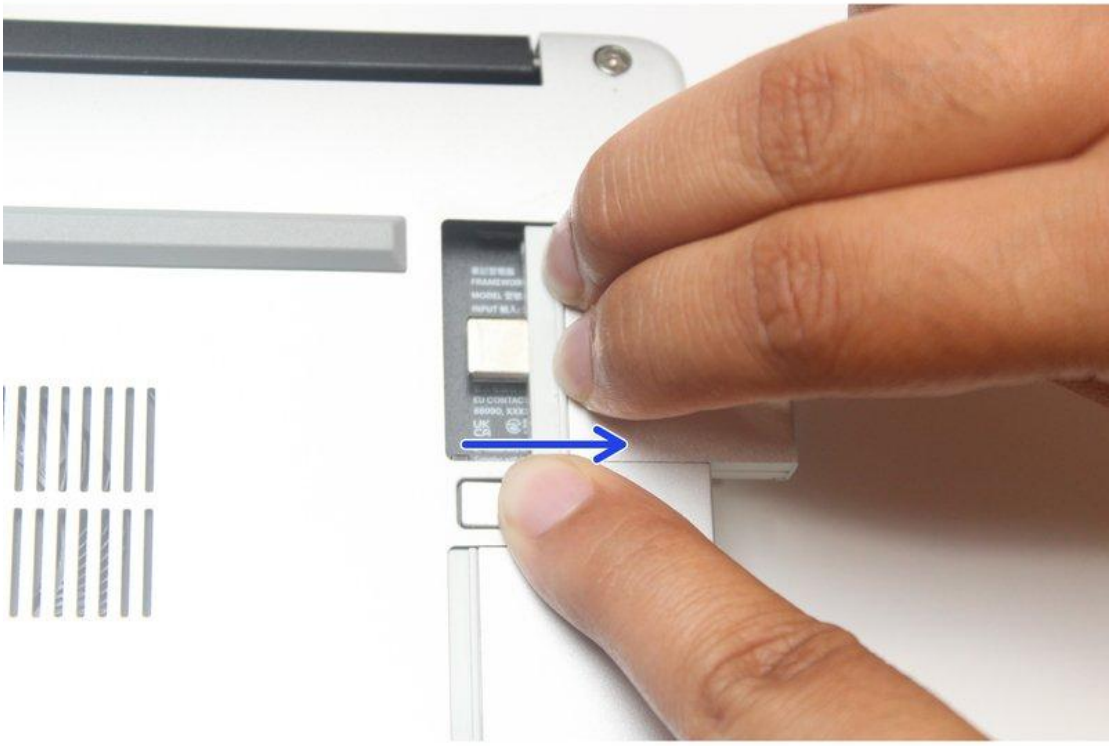
- Power off the Framework Laptop by navigating to the Windows icon on the bottom left and clicking on "Power" followed by "Shut down," or if on Linux, the equivalent action there.

Step 3 Unplug power

- Unplug your power cable from the USB-C Expansion Card in your Framework Laptop.

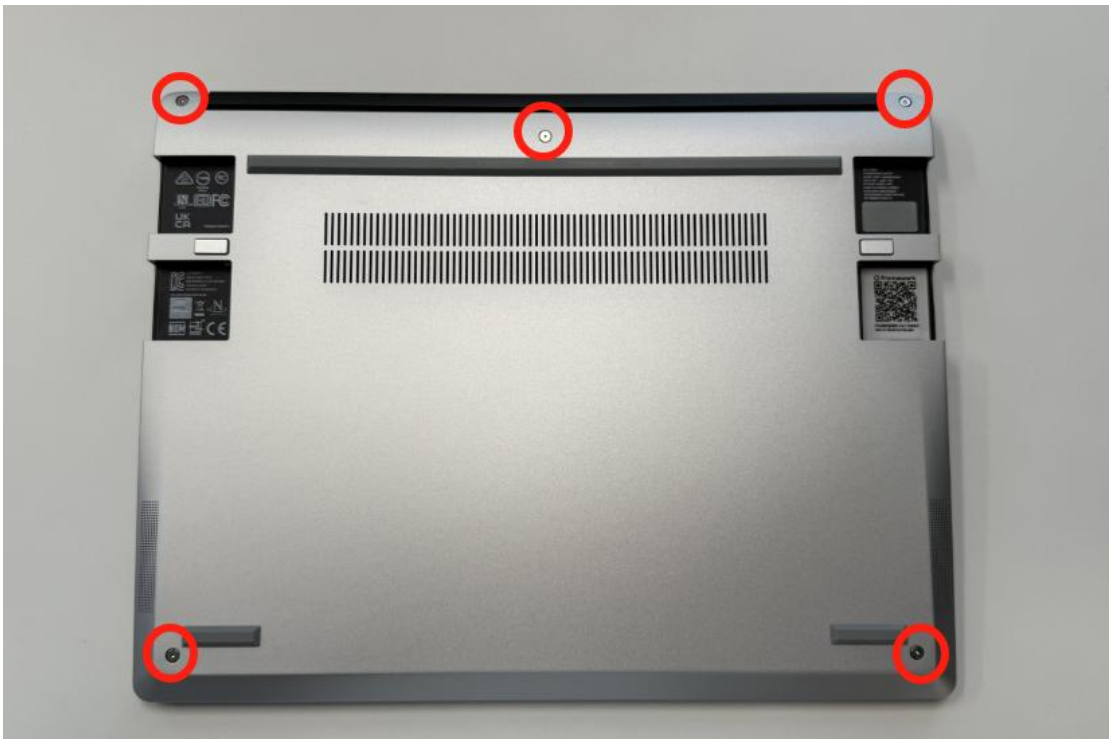
Step 4 Remove all the Expansion Cards

- Close your laptop completely and turn it over so you can access the Expansion Cards.
- While keeping the release button pressed, use your other fingers to slide the Expansion Card away from the laptop.
- Important: You may have to use a little bit of force to fully disconnect the Expansion Card.
- Make sure each Expansion Card is fully removed before proceeding to the next step.



- Step 5 Unscrew the five fasteners on the Bottom Cover

- Using the T5 bit in the Framework Screwdriver, unscrew the 5 fasteners on the Bottom Cover. These fasteners will remain attached in the Bottom Cover so that you don't lose them.
- The fastener on the bottom left (circled in orange) won't unscrew as far as the others, as it is acting as a lifter for the Input Cover. You'll hear it start clicking as you rotate when it is unscrewed far enough.



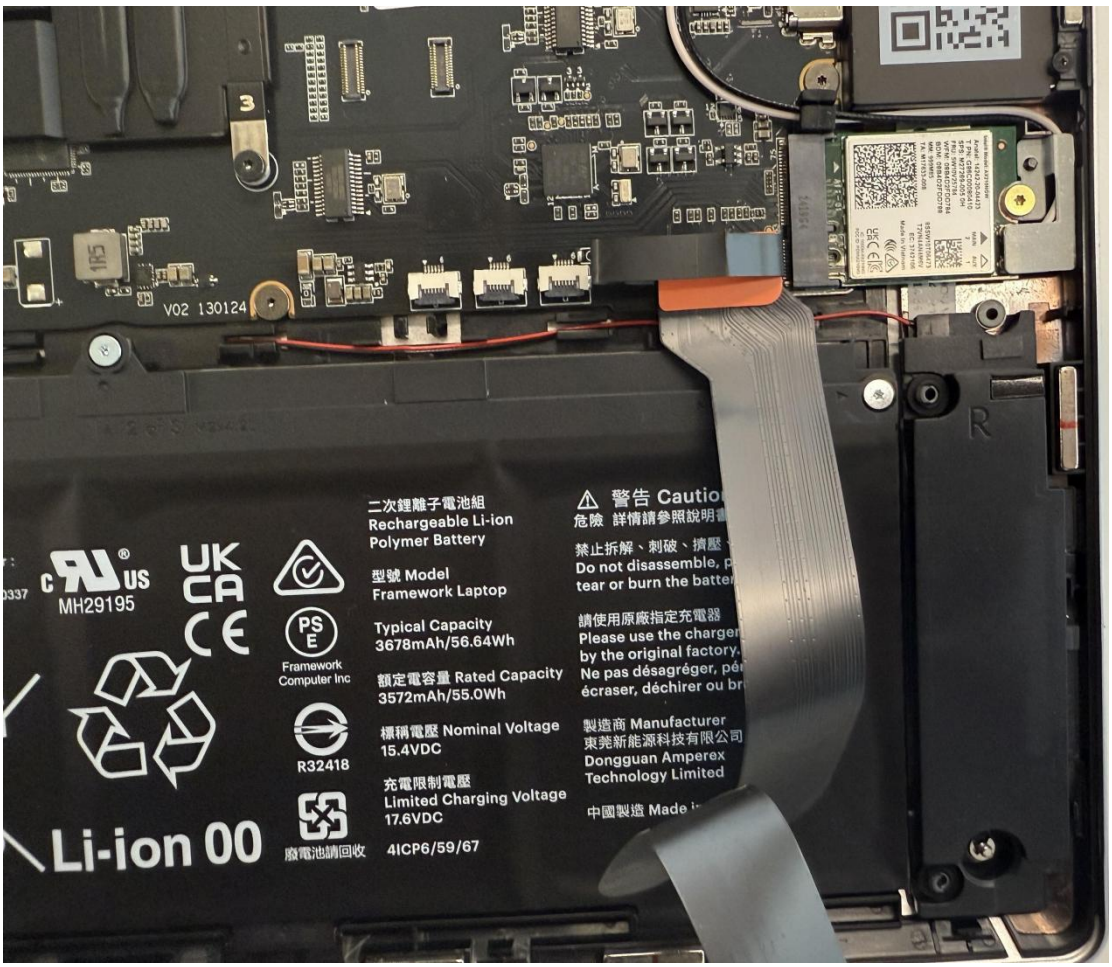
Step 6 Lift the Input Cover off

- Turn the Framework Laptop over and open it to 120 degrees.
- The bottom right corner of the Input Cover lifts up when the five fasteners are properly unscrewed from the previous step. You should not have to use any excessive force to remove the Input Cover.
- Carefully lift the cover up from the bottom right corner. If you need to, you can use the spudger end of the Framework Screwdriver to lift it as well. Lift the Input Cover off the Mainboard and flip it over (keyboard side down) and place it about halfway on the Bottom Cover.
- Important: Do not pull the Input Cover fast or with too much force as it is still attached to the Mainboard via the Touchpad Cable.


framework
esc
fn lock
tab
caps lock
shift
ctrl
fn
alt

Step 7 Disconnect the Touchpad Cable

- Disconnect the Touchpad Cable from the Mainboard by inserting your finger into the loop and pull directly upward using a slight amount of force.
- Once the Touchpad Cable is disconnected, remove the Input Cover away from the Mainboard.


V02 130124
二次鋰離子電池組
Rechargeable Li-ion
Polymer Battery
型號 Model
Framework Laptop
Typical Capacity
3678mAh/56.64Wh
額定電容量 Rated Capacity
3572mAh/55.0Wh
標稱電壓 Nominal Voltage
15.4VDC
充電限制電壓
Limited Charging Voltage
17.6VDC
4ICP6/59/67
MH29195
Framework
Computer Inc
R32418
廢電池請回收
Li-ion 00
製造商 Manufacturer
東莞新能源科技有限公司
Dongguan Amperex
Technology Limited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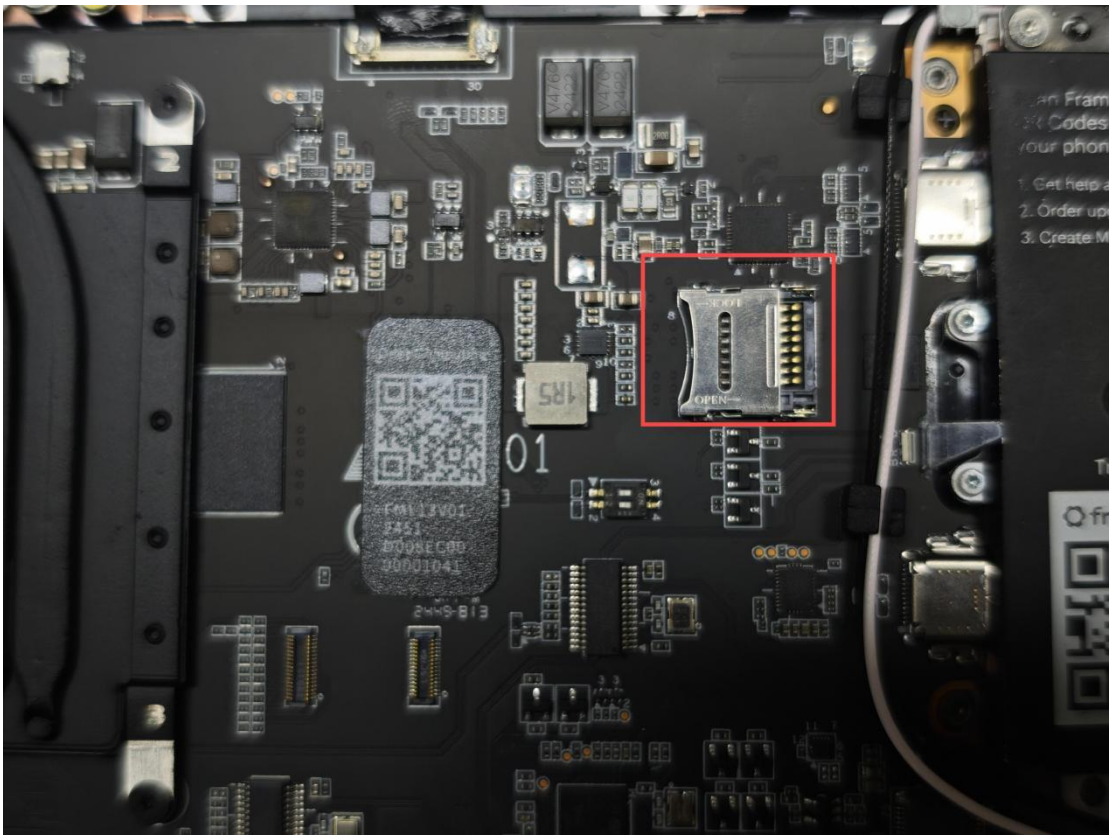
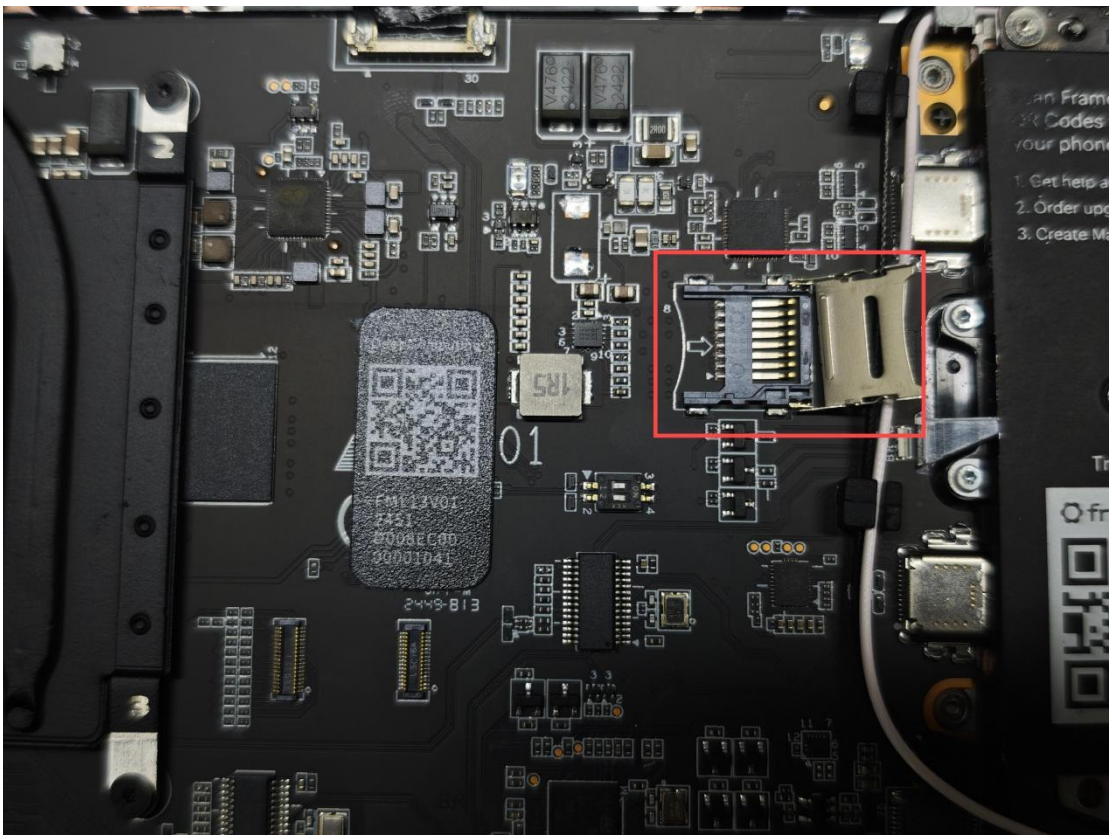
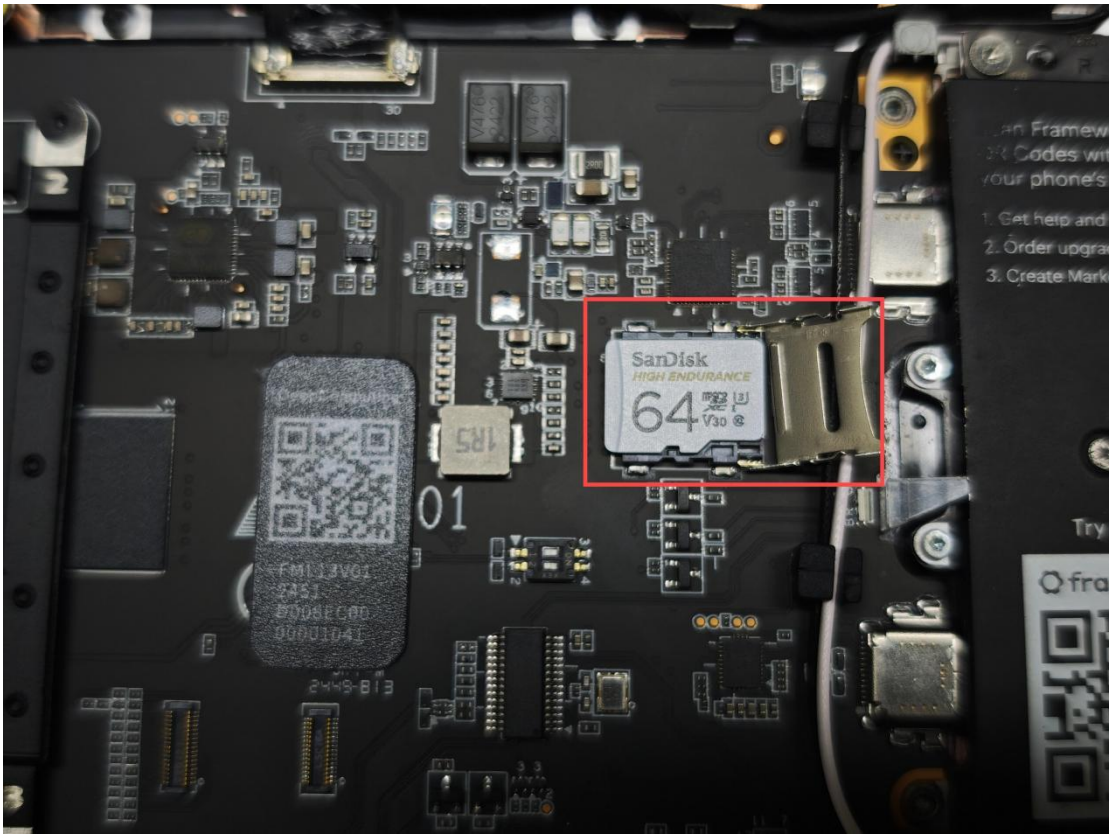
TOUCHPAD

Step 8 Install the burned Ubuntu TF card to the DC-ROMA RISC-V Mainboard

- Locate the TF card slot on the mainboard.
- Lift the metal housing holding the TF card and place the TF card in the card slot.
- Finally, the TF card is secured with a metal shell.






SanDisk
HIGH ENDURANCE
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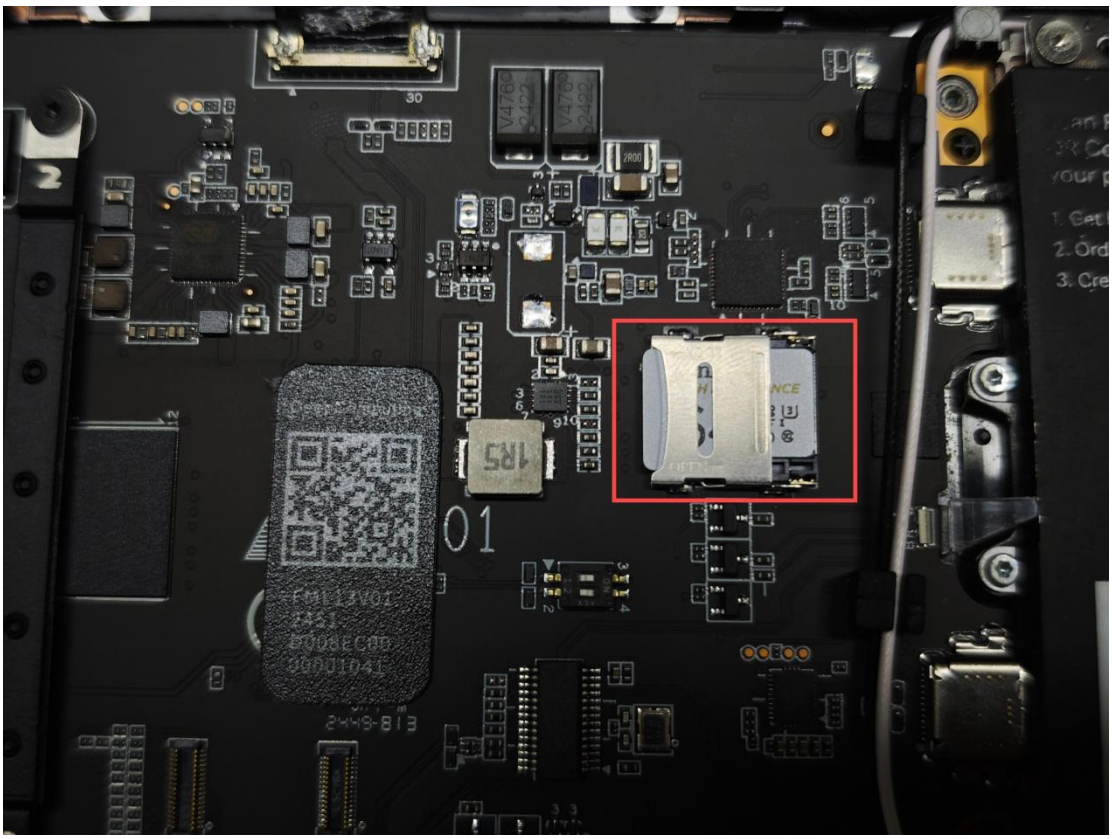

Step 9 Prepare to connect the Input Cover

- Gently place the Input Cover keyboard side down on the Bottom Cover as indicated on the image. The cover should be about an inch and a half away from the bottom of the Mainboard so that you can comfortably install the Touchpad Cable.
- Note: The orientation of the Input Cover matters. Study the first image in this step to ensure you are properly attaching the cover.
- Locate the loop on the end of the Touchpad Cable and insert your finger into it.


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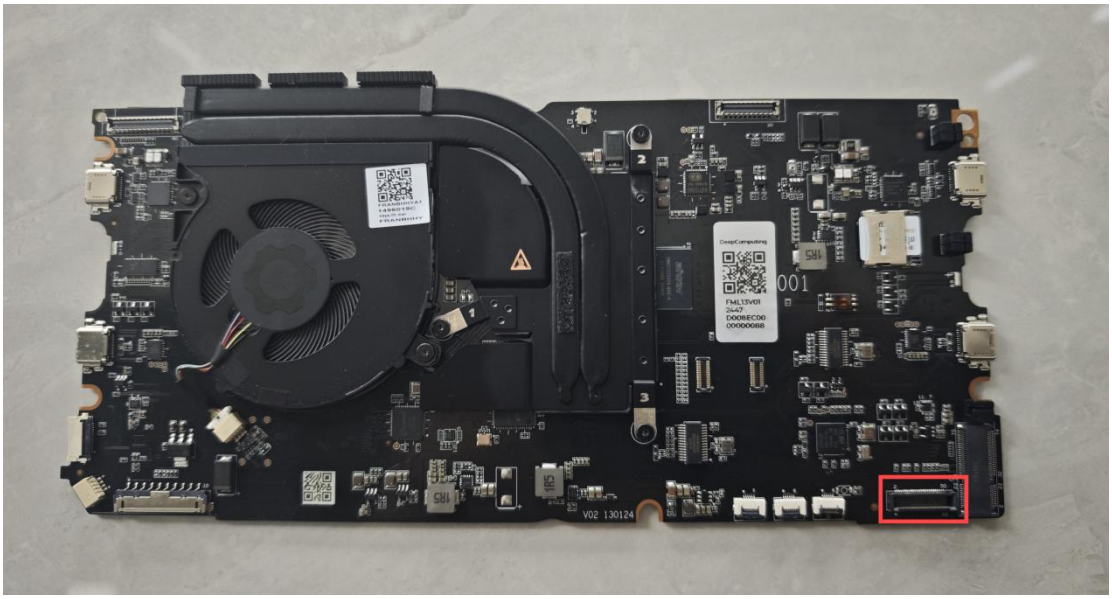
Step 10 Connect the Touchpad Cable to the Mainboard

- Using slight force, connect the Touchpad Cable by aligning it to the socket on Mainboard. You should hear it click into place once properly connected.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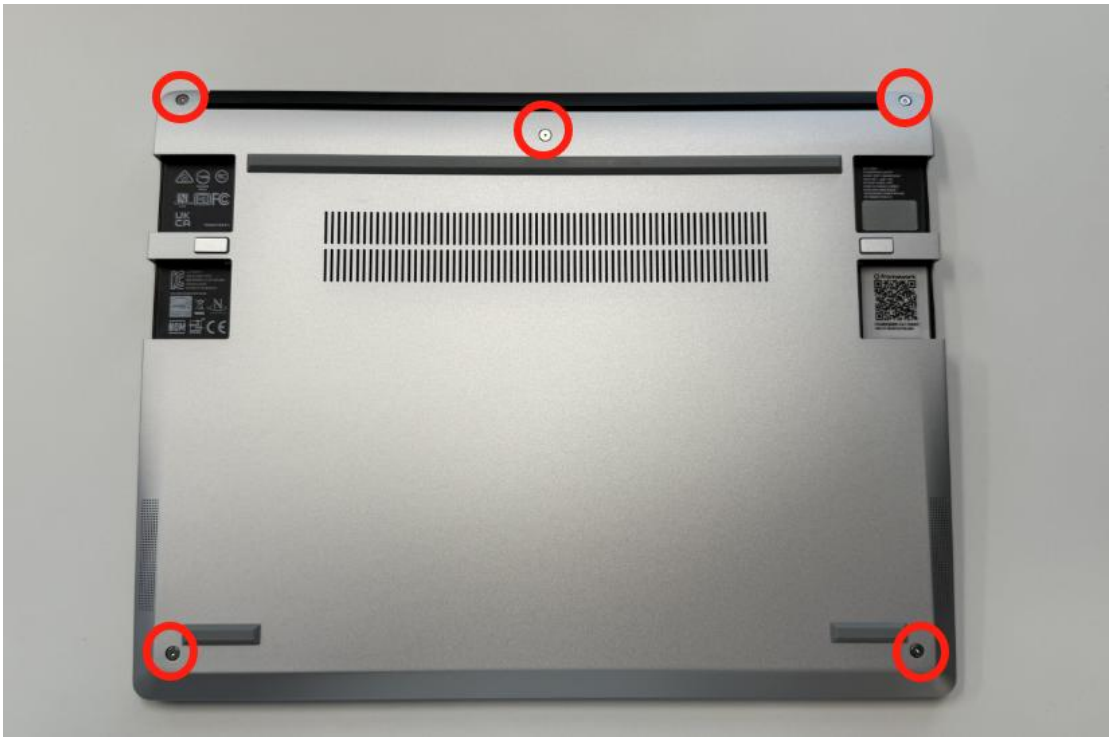
Step 11 Re-install the Input Cover

- Once the Touchpad cable is secured to the Mainboard, flip the Input Cover over the Bottom Cover so that the keyboard is facing up and attach it to the Bottom Cover by aligning the top and bottom edges of both covers.

- Tip: The covers are magnetic and should fit into one another easily. If you feel any resistance simply lift the Input Cover up and try again.

Step 12 Screw the fasteners back into the Bottom Cover

- Close the Framework Laptop and turn it upside down to reveal the empty Expansion Card bays and fasteners on the Bottom Cover.
- Using the T5 bit in the Framework Screwdriver, screw all 5 fasteners back into the Bottom Cover.
- Be sure to not over-tighten the fasteners.

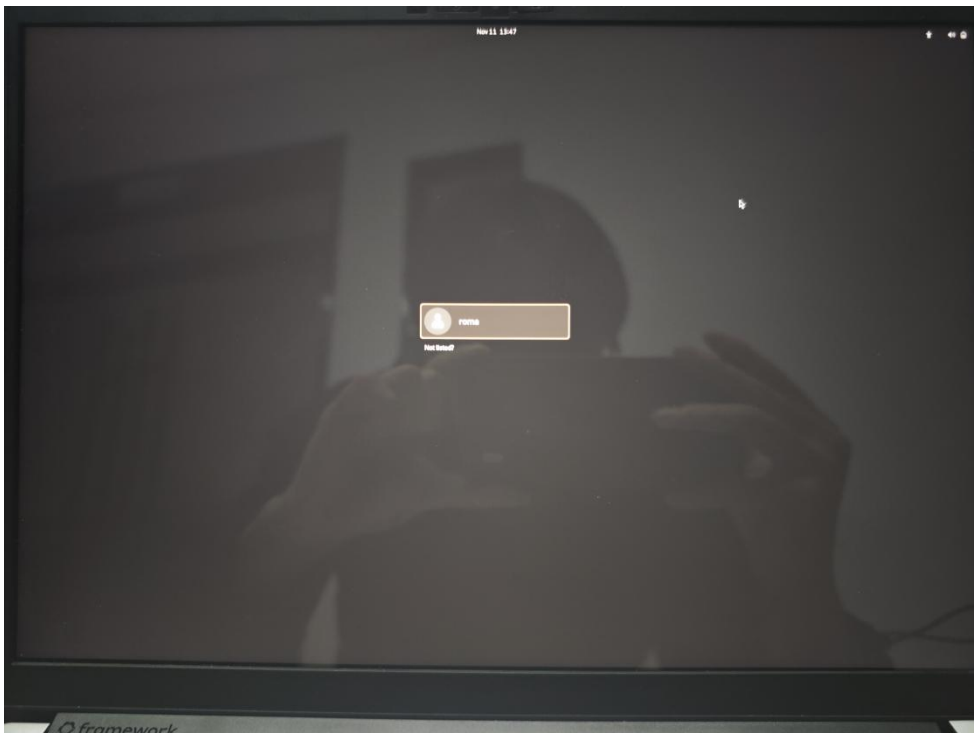


Step 13 Start using the Framework Laptop!

- Insert the Expansion Cards of your choice into any of the empty bays.
- Plug the USB-C power cable into the USB-C Expansion Card.
- Turn the Framework Laptop over, open it, and press the power button.

Step 14 Welcome to Ubuntu Linux

- Wait one to two minutes for the startup process. During the startup process, the serial port is displayed.
- Since the system has set the default user and password, you only need to enter the password to enter the new system（The default password is roma.）
- After entering the password and entering the system, you can start developing with the Ubuntu system.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