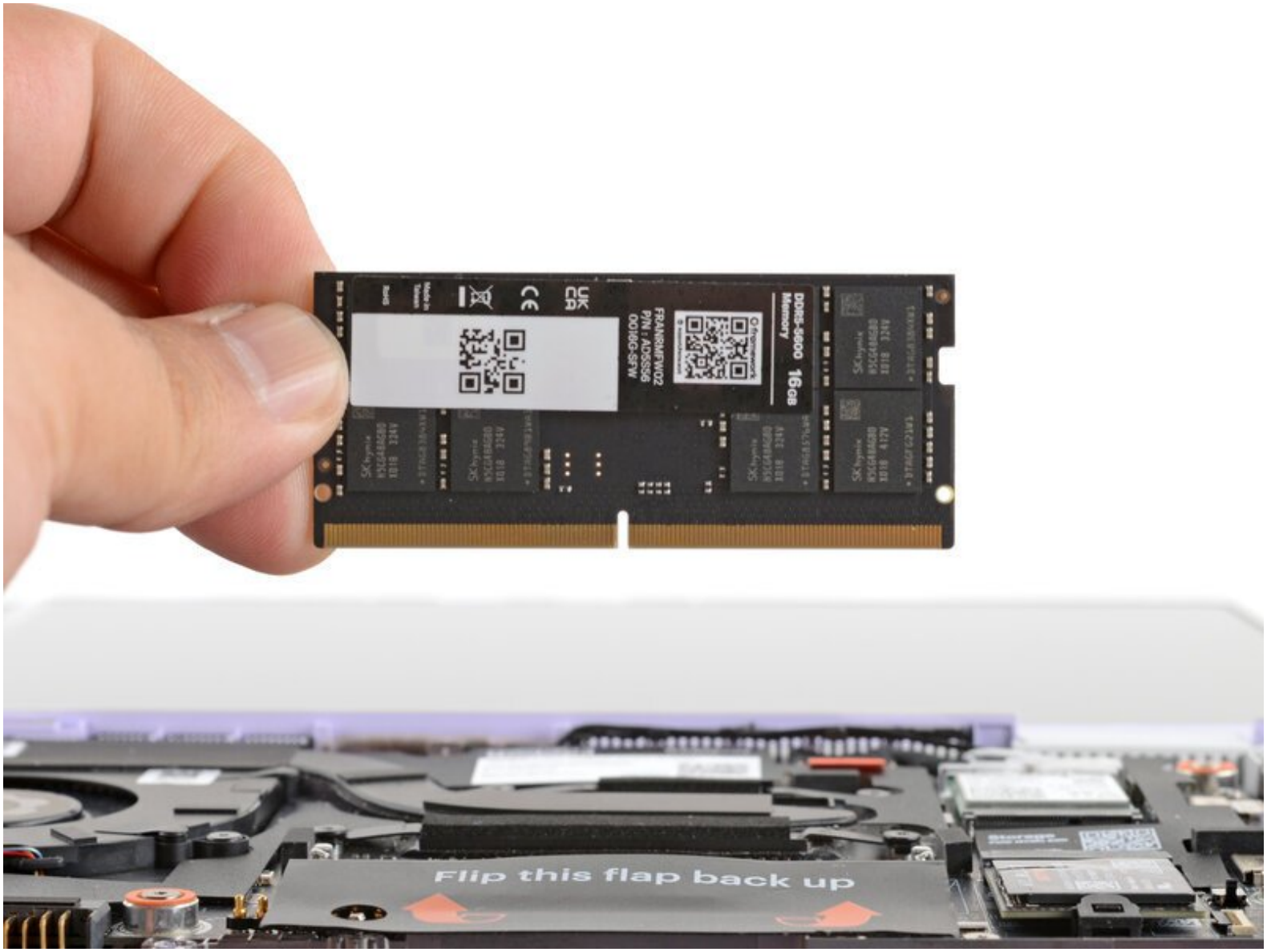
Memory Module Replacement on Framework Laptop 12

Written By: Iroh



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INTRODUCTION

Follow this guide to replace or upgrade the memory module (aka RAM) in your Framework Laptop 12.

If you're bringing your own memory, the SO-DIMM memory slot supports up to 64 GB of DDR5 memory at DDR5-6400 speed (Intel Core Series 3) or 48 GB of DDR5 memory at DDR5-5200 speed (Intel Core 13th Gen). If you install memory faster than the supported speed, the laptop will work properly, but not use the full memory speed.

Click below for a list of validated memory modules:

- Intel Core Series 3
- Intel Core 13th Gen

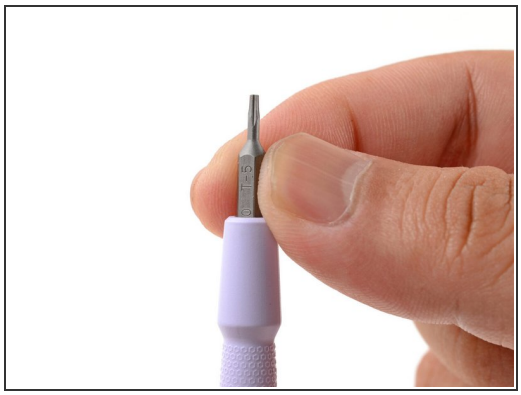
You'll encounter some component terms in this guide:

- The **Input Cover** is the piece that contains the Keyboard and Touchpad.

TOOLS:

- Framework Screwdriver (1)

Step 1 — Power down your Laptop

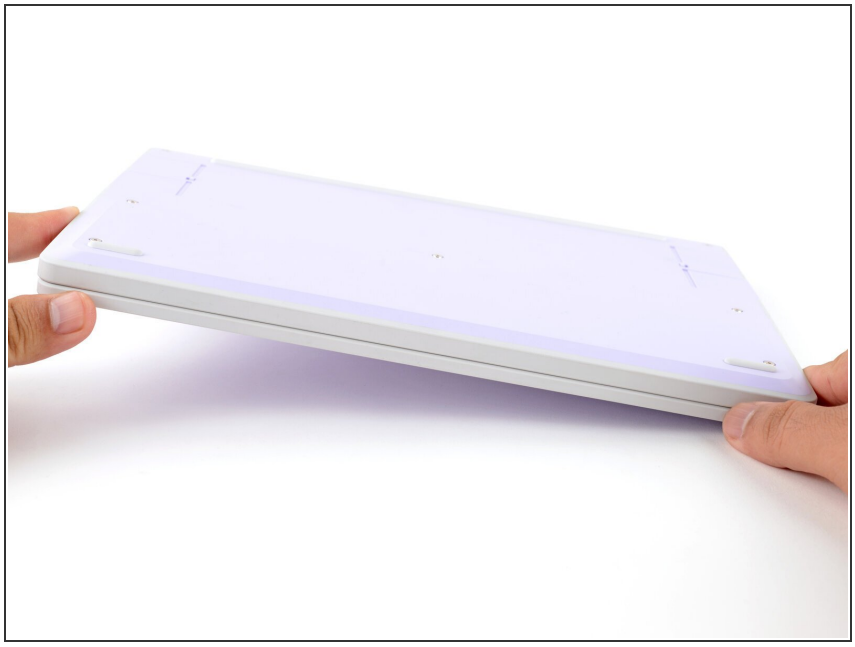


- Before you begin repairs, unplug your Laptop and **shut it down from the operating system**. This ensures that the Laptop isn't in standby/suspend mode.
  - ⓘ The indicator LEDs along the edges should be unlit. The Laptop should be silent.

ⓘ If you accidentally turn on the Laptop during repair, hold the power button down for 10 seconds to shut it down.

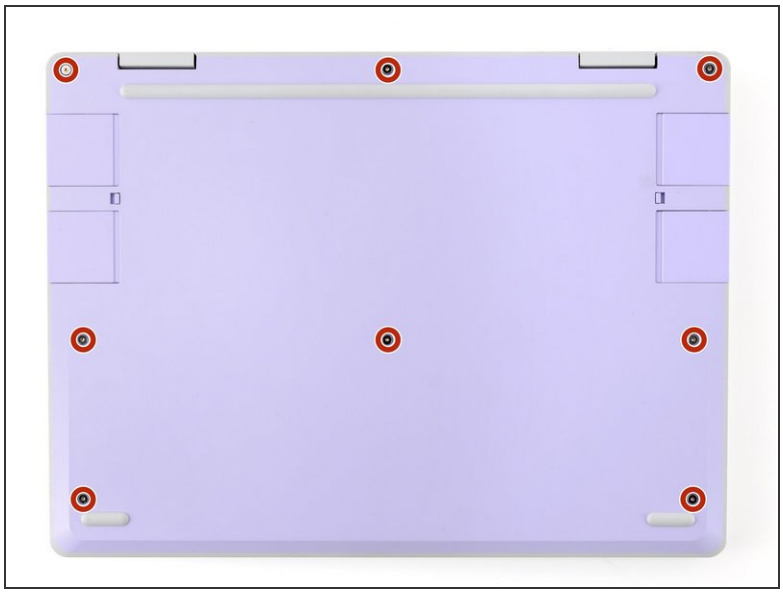
- Make sure your Framework Screwdriver has the T5 Torx bit (labeled as T-5) facing outwards. If it's not, pull the bit out and flip it.

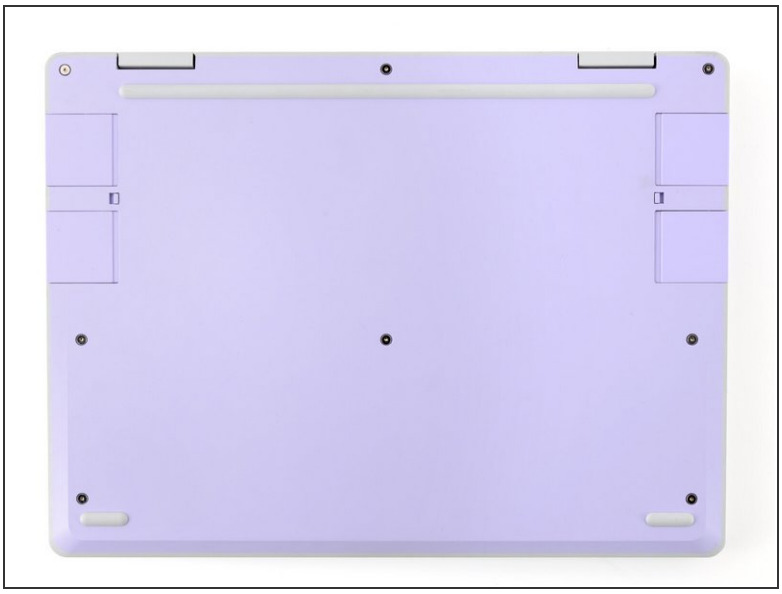
Step 2 — Set your Laptop down



- Set your Framework Laptop face-down on a clean work surface.

Step 3 — Loosen the bottom screws





- Use your Framework Screwdriver to fully loosen the eight captive T5 Torx screws on the bottom of your Laptop.
  - ⓘ Most screws in your Framework Laptop (including these) are captive—they're designed to stay in place after you loosen them.
  - ⓘ Your Laptop comes with a spare set of screws in the frame above the battery. Be careful—the replacement screws aren't captive.

Step 4 — Flip your Laptop over

- Flip your Laptop over so it's face-up on your work surface.

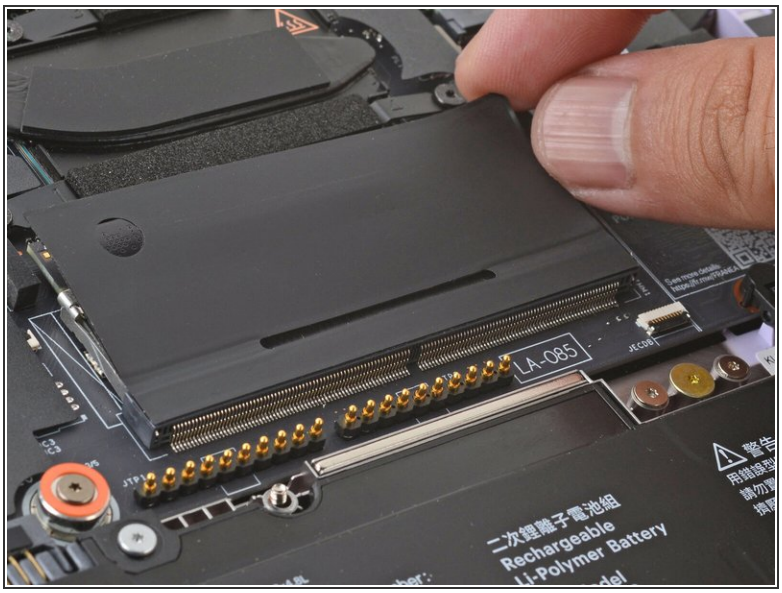
Step 5 — Open your Laptop

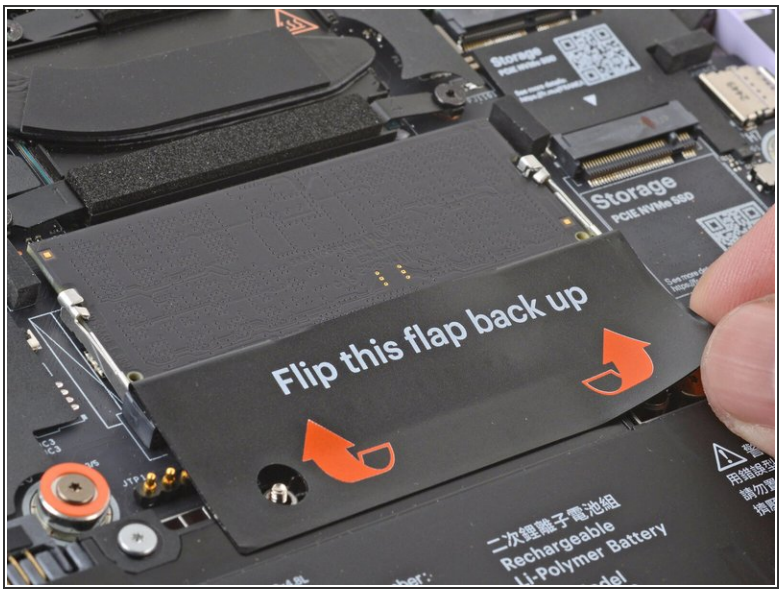
- Open the Laptop lid so that both the screen and the base lie flat on your work surface.

Step 6 — Remove the Input Cover

- Use your fingers to grip the Input Cover in the hinge cutouts.
- Lift upwards to swing the Input Cover up from the base of the Laptop.
  - ⓘ There are magnets holding the Input Cover down, so you'll feel some resistance. If it feels like a lot of force is required, check that you've fully loosened all the screws on the bottom of your Laptop.
  - Remove the Input Cover.

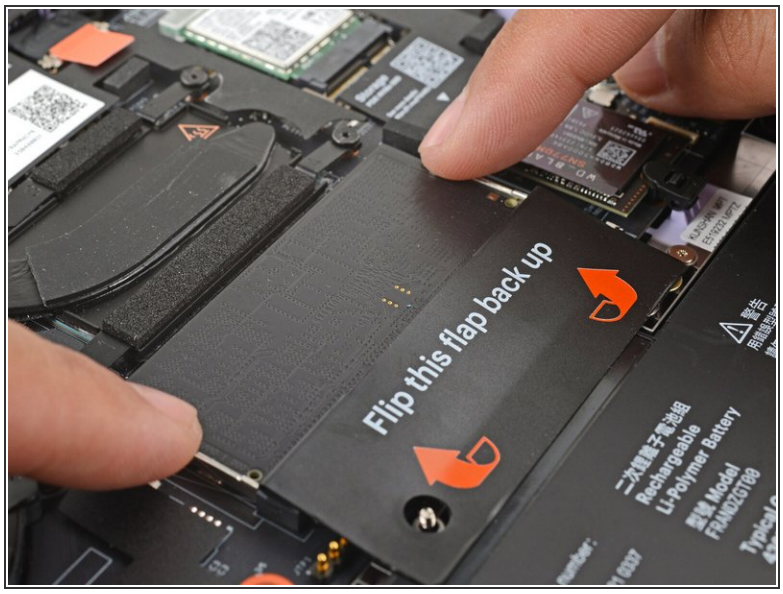
Step 7 — Open the memory flap

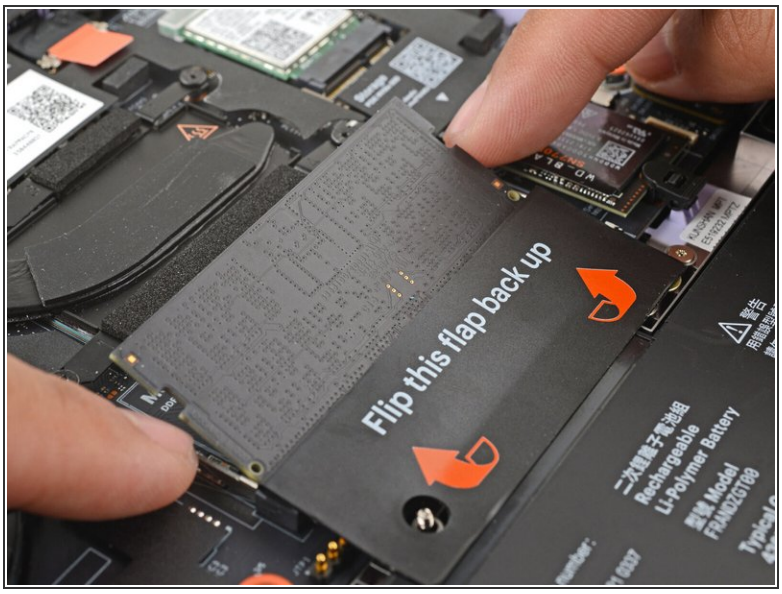




- Use your fingers to flip open the memory flap.

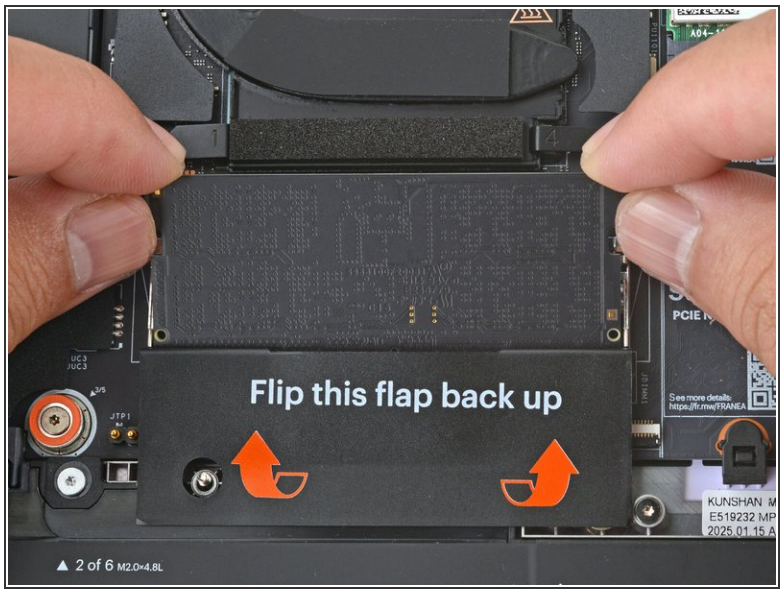
Step 8 — Remove the memory module

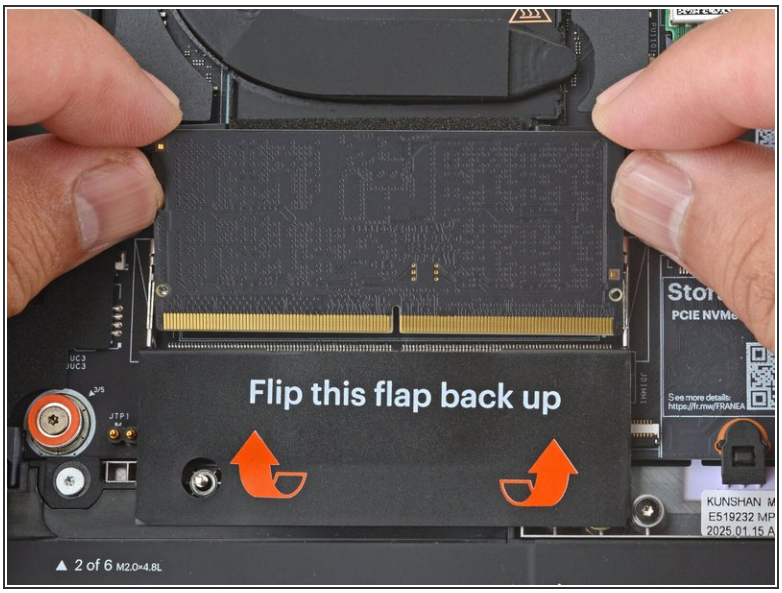




- Use your fingers to spread the clips on both sides of the memory module apart to unclip the memory.
  - ⓘ The memory module will pop up to an angle when it's unclipped.

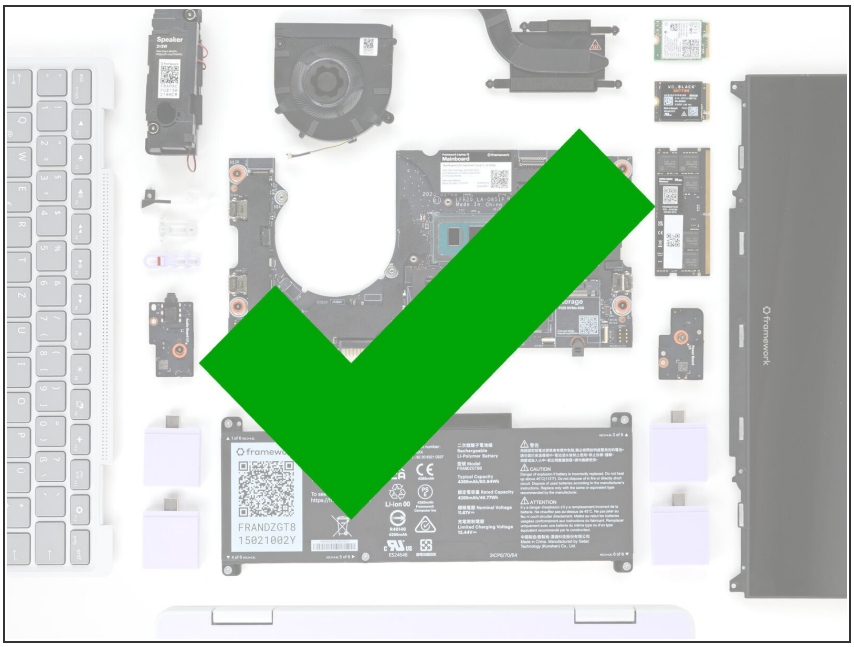
Step 9





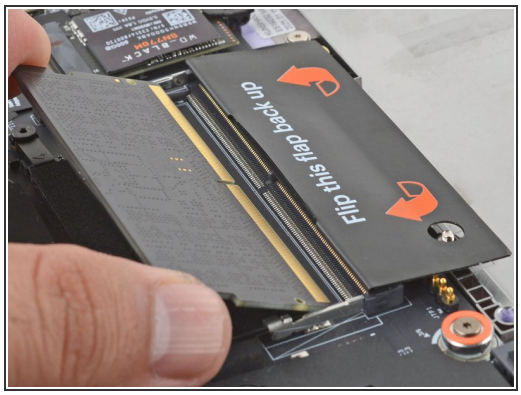
- Use your fingers to grab the memory module by its edges.
- Slide the memory module out of its socket and remove it.

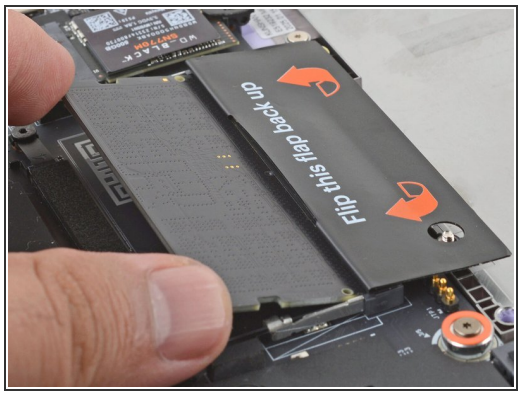
Step 10 — Disassembly complete

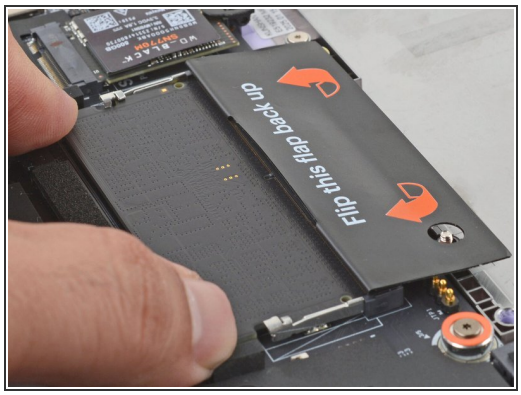


Congratulations on completing disassembly! **The remaining steps will show how to reassemble your Framework Laptop.**

Step 11 — Install the Memory module







⚠ **Hold the memory module by its edges. Don't touch the gold contacts with your fingers** . If you do, wipe the contacts with a clean, lint-free cloth to remove any finger oils.

- Orient the module with the label facing down and align the gold contacts with the socket.
- Insert the contact edge into the socket at a shallow angle. The gold contacts should mostly be covered by the socket.
  - ⚠ Intel Core Series 3 Mainboards have the RAM flipped compared to these images. The shorter side of connectors will be on the left.
- Press the edges of the memory module down until the side clips lock it in place.

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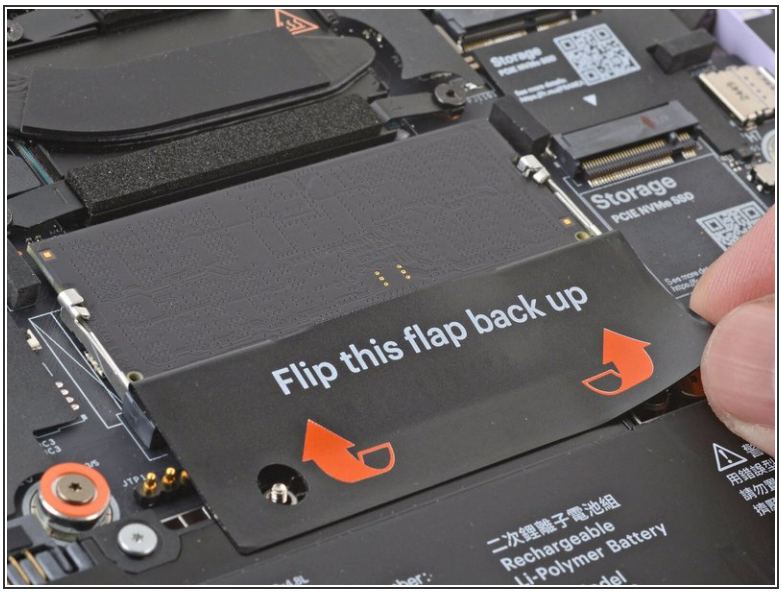
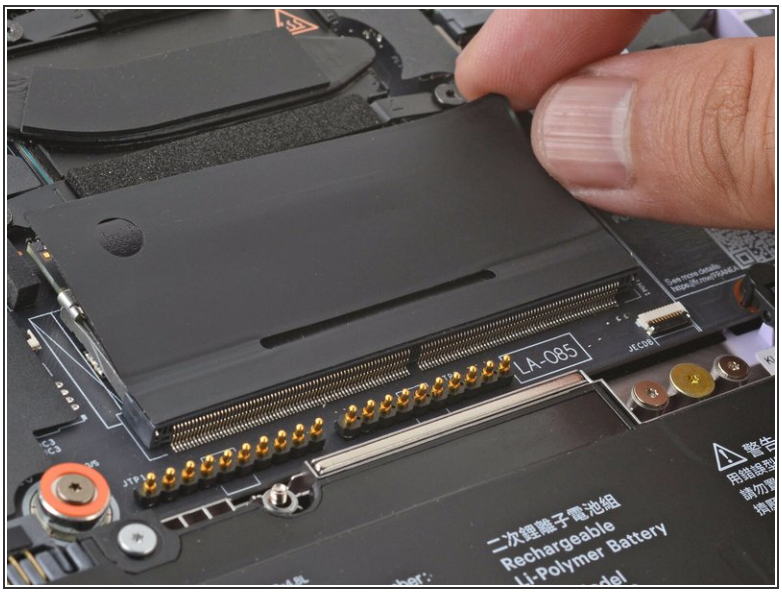
Step 12



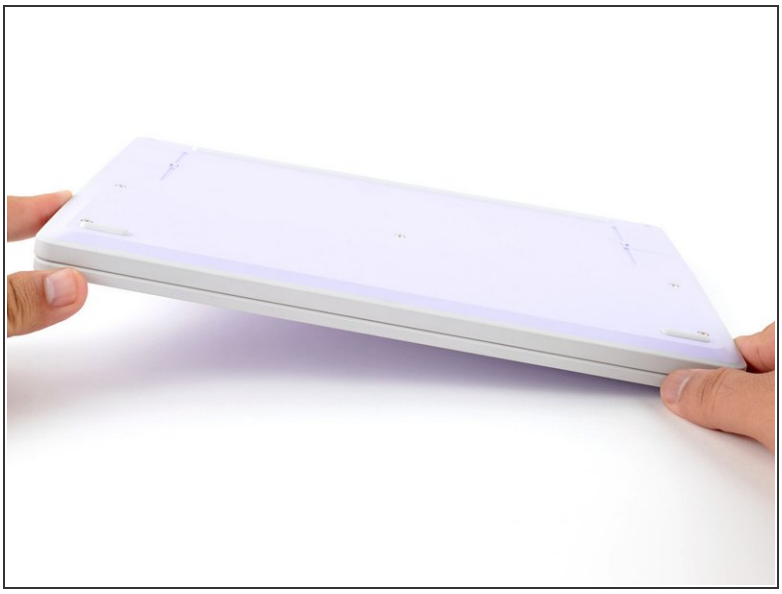


- Flip the memory flap back over the memory module.

Step 13 — Install the Input Cover

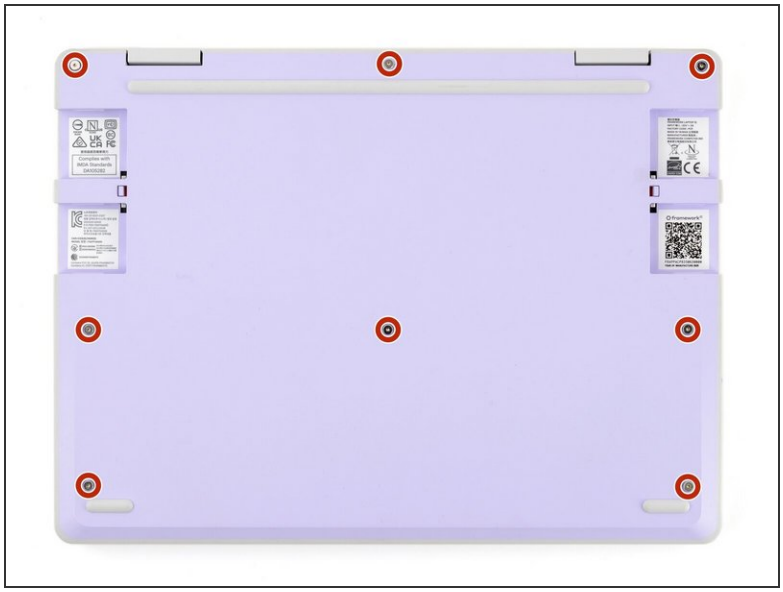
- Angle the bottom edge of the Input Cover towards the base of the Laptop.
- Align and insert the bottom edge of the Input Cover into the base of the Laptop.
  - ⓘ Make sure the slots along the bottom edge of the Input Cover slide into the tabs in the base.
- Lower the Input Cover's top edge onto the laptop until the magnets snap it in place.
  - ⓘ Make sure the Input Cover sits neatly within the laptop frame and no corners are popping up.

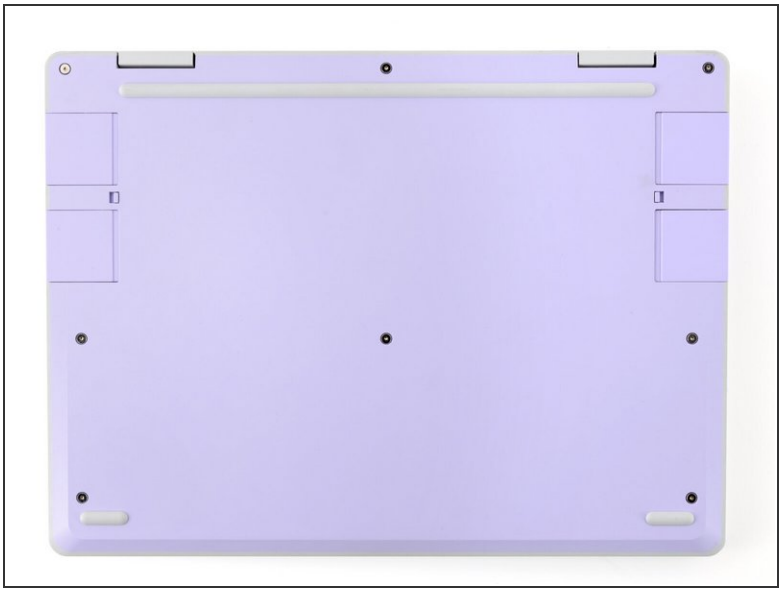
Step 14 — Close and flip your Laptop



- Close the Laptop lid.
- Flip your Laptop face-down on a clean work surface.

Step 15 — Tighten the bottom screws





- Use your Framework Screwdriver to tighten the eight captive T5 Torx screws on the bottom of your Laptop.
  - ⓘ Tighten the screws until they're snug. Don't over-tighten them, or you may strip the screws.

You finished fixing your Framework Laptop!

After installing new memory, the laptop will take longer to start up for the first time, and the screen will turn on slower. This is normal—the system is performing memory training.

Take your e-waste to an R2 or e-Stewards certified recycler.

If you need help, contact Framework support.

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