



Hinge Replacement Guide

Replacing the Hinges on the Framework Laptop

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INTRODUCTION

This is one of the more challenging repairs on the Framework Laptop, but in the event you have hinges that have worn through their cycle life, you can resolve this by replacing them.



TOOLS:

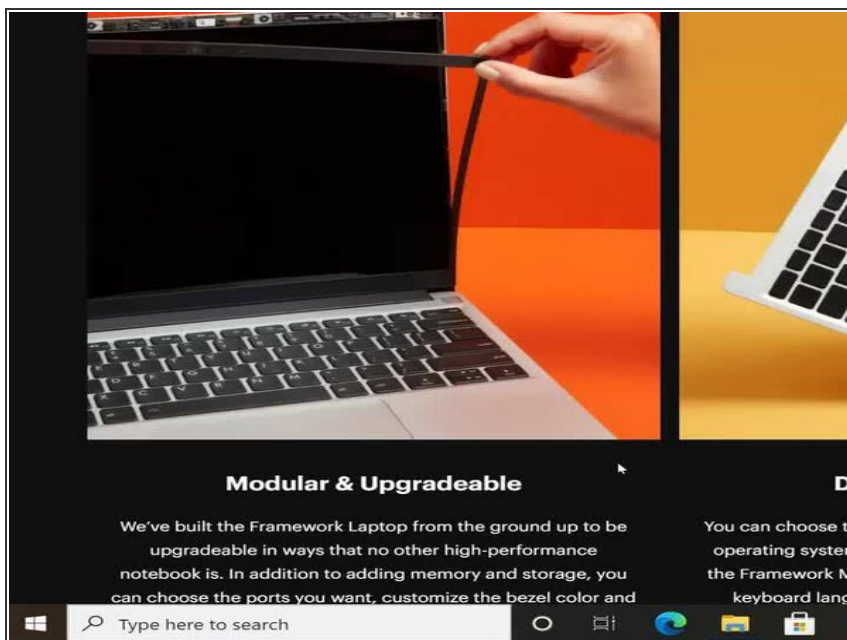
- Framework Screwdriver (1)



PARTS:

- Hinge Kit (1)

Step 1 — Shut down the Framework Laptop



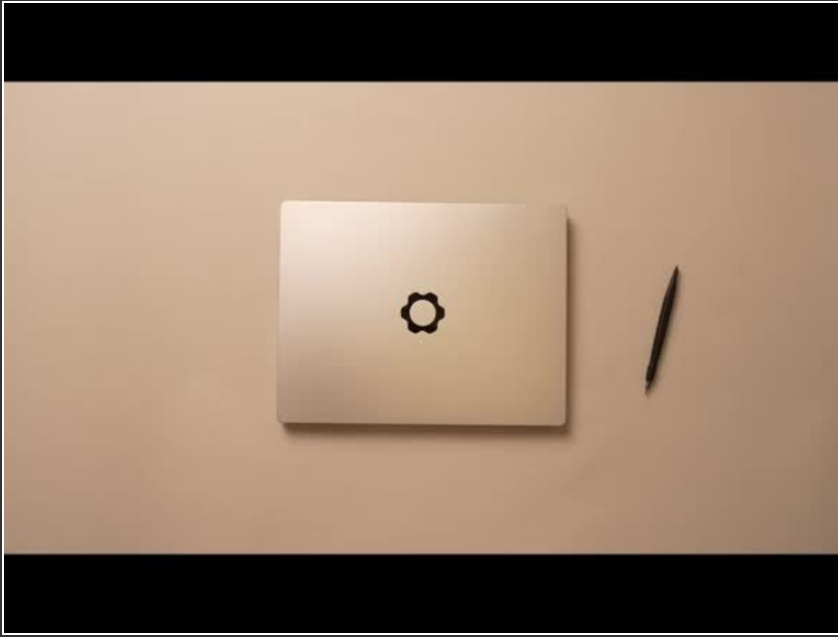
- Power off the Framework Laptop by navigating to the Windows icon on the bottom left and clicking on "Power" followed by "Shut down," or if on Linux, the equivalent action there.

Step 2 — Unplug power



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

Step 3 — Unscrew the five fasteners on the Bottom Cover



- Close the lid on your Framework Laptop and place it upside down on a soft, non-marring surface, such as the bag that it shipped in.
- 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 do not lose them.
- The fastener on the bottom left (circled in red) will not unscrew as far as the others, as it is acting as a lifter for the Input Cover.

⚠ You'll hear this fastener start clicking as you rotate when it is unscrewed far enough.

⚠ Do not use a powered tool for these steps, as this will likely result in damage to the fasteners.

Step 4 — Lift up and flip over the Input Cover





- Flip the Framework Laptop back over and open the lid to around 120 degrees.


⚠ Important: Pull the Input Cover off carefully as it is still attached to the Mainboard via the Touchpad Cable. You don't need to disconnect this cable to do most repairs. You can just flip the Input Cover over. If you do want to disconnect it though, make sure to disconnect the Mainboard side using the finger loop over the orange label.

- 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, flip it over (keyboard side down), and place it about halfway on the Bottom Cover.

⚠ Be sure not to put too much force on the Touchpad Cable when doing this.

 If the LEDs on the left and right sides of the system are flashing red when you lift off the cover, it means the system is still powered on. Make sure your power cable isn't plugged in and that you have shut down correctly.

 Note that it may take up to 30 seconds after shutting down for the system to fully power off. Wait until the LEDs stop flashing before proceeding.

 **You should keep the Battery connector plugged in unless you need to replace the Battery, Mainboard, or Speakers. This connector is easy to accidentally damage, so it's better to not handle it.**

Step 5 — Remove the Bezel

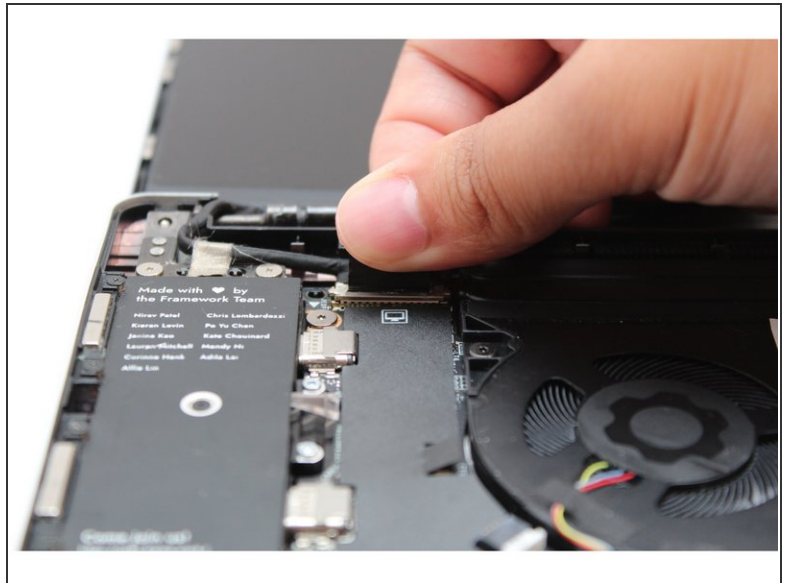
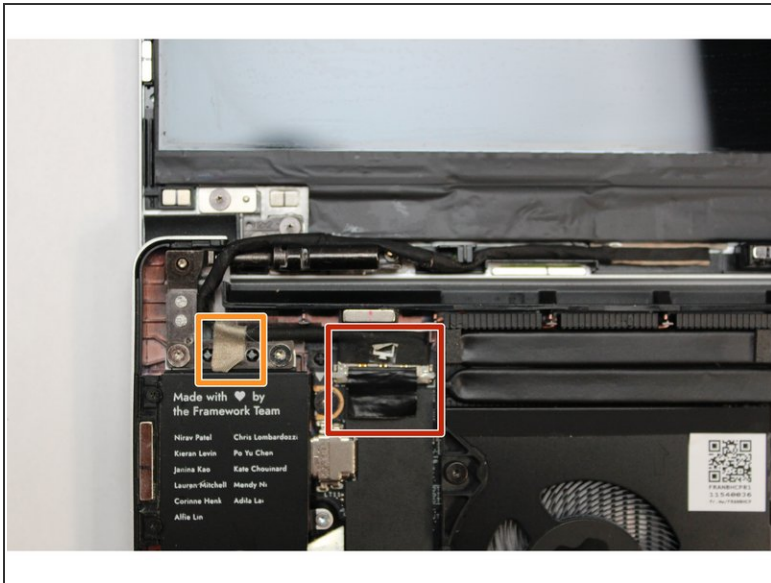


- Open the Framework Laptop 180 degrees to remove the Bezel.

⚠ Be careful to check that the back left and right fasteners that you unscrewed earlier don't get caught on the lid as you open it to 180 degrees.

- The Framework Bezel is attached by magnets so you will not require any tools to remove it. Just use your fingernail and pry the Bezel away from the display from one of the top corners of the Framework Laptop.
- Once the Bezel starts peeling off towards the bottom of the Display, lift it up using caution. You might feel a little resistance due to the adhesive at the bottom of the display.

Step 6 — Disconnect the display cable



- Find the black Display Cable that connects the display to the mainboard. Unplug the cable by pulling it directly upwards using the black pull tab.
- Carefully lift up the silver grounding tape that is holding the Display Cable to the hinge.
- Free the Display Cable from the Bottom Cover and carefully remove it from any routing pegs. It will remain connected to the display.

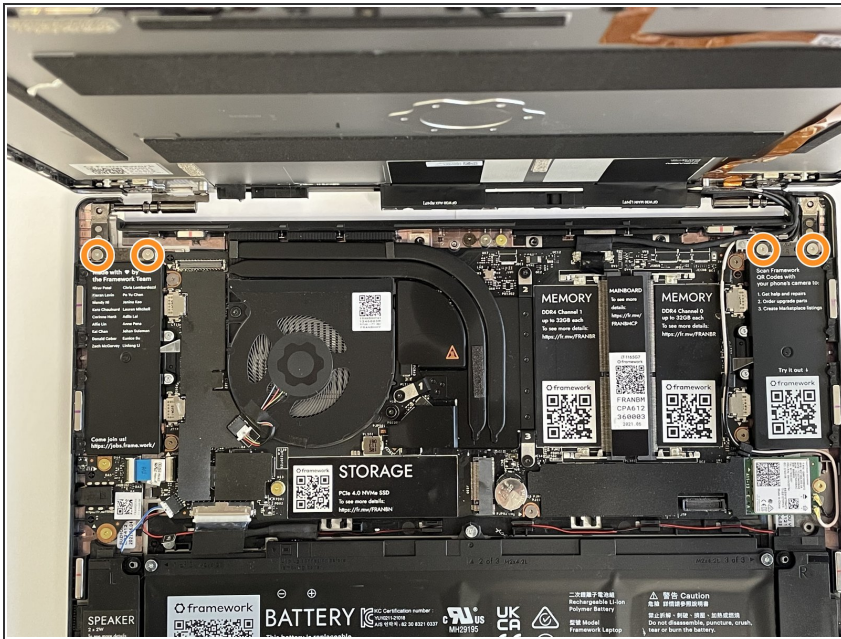
Step 7 — Remove the Display



- Using the T5 bit in the Framework Screwdriver, unscrew the 4 fasteners connecting the Display to the Top Cover.
- The Display is now fully unattached to the Top Cover, you can gently lift it up from the corner using your fingernail.

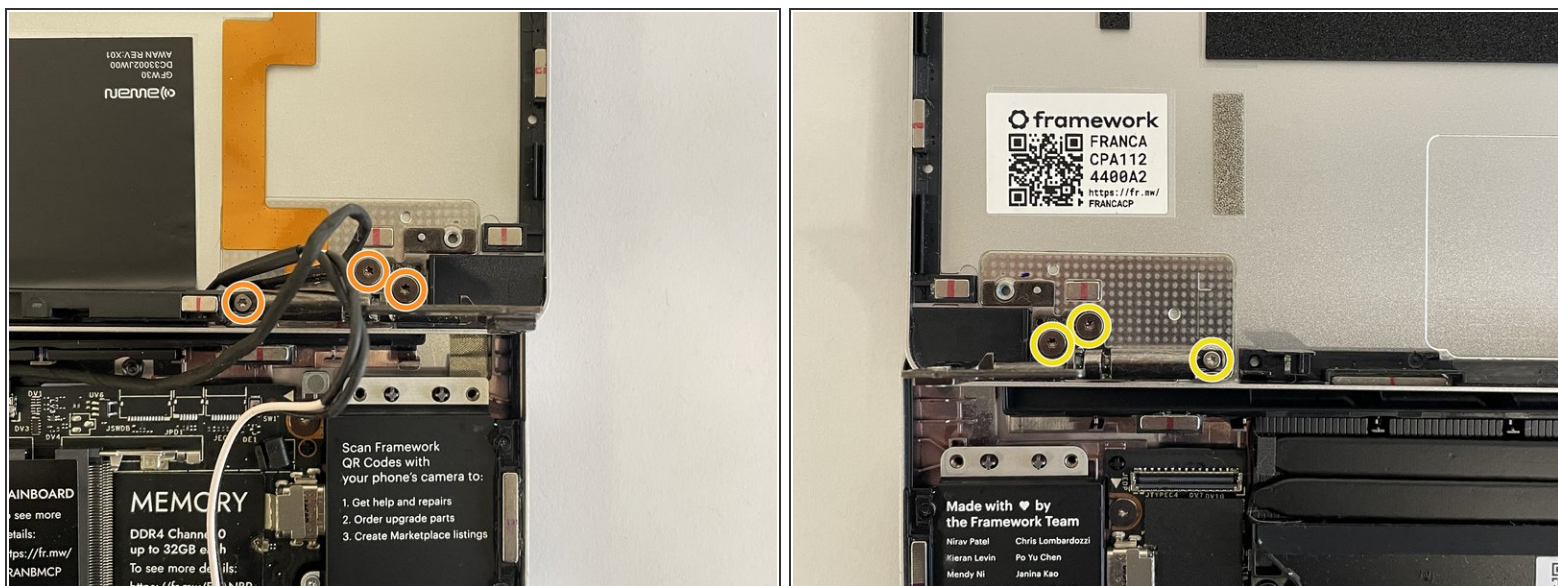
 Be sure to only handle the Display by the side edges and avoid touching the bottom area.

Step 8 — Separate the Top Cover Assembly



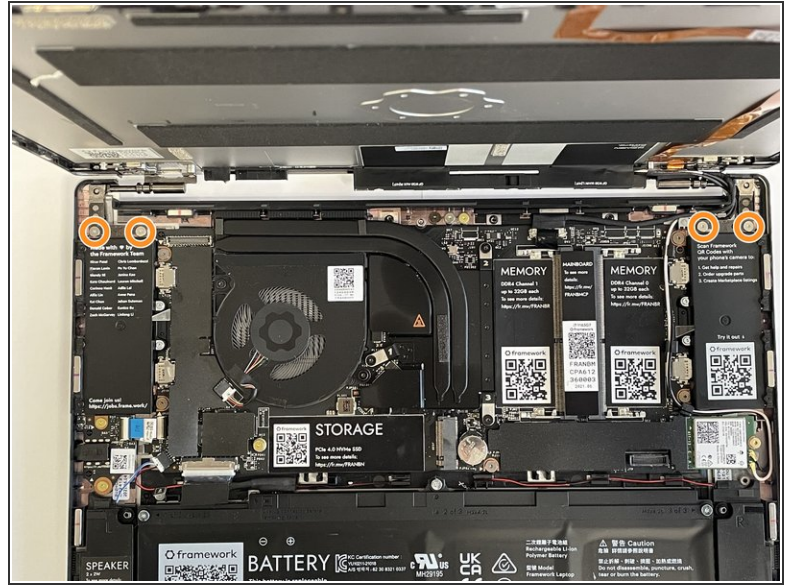
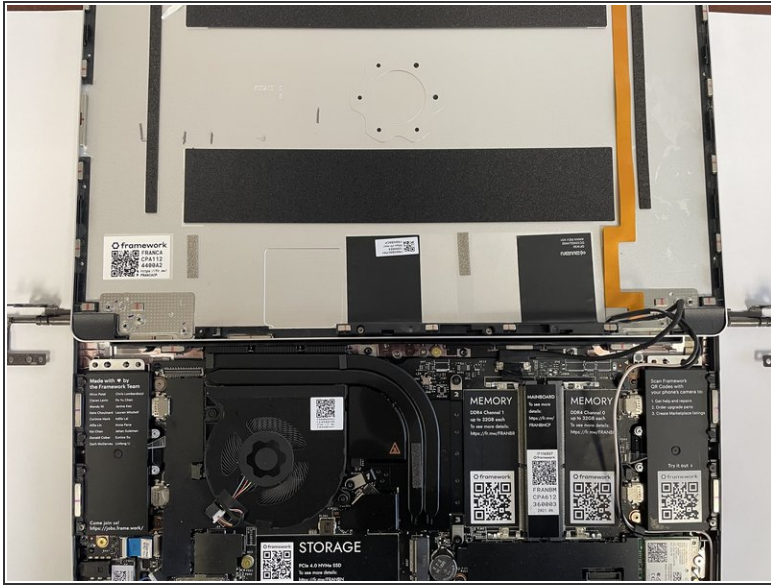
- Rotate the lid back up to a 90 degree angle to make it easier to remove and install the Hinges.
- With the T5 bit in your Framework Screwdriver, unscrew the four fasteners that hold the Hinges into the Bottom Cover.
- ⓘ Note that these fasteners are longer than the ones used to attach the Display and Hinges into the Top Cover. Make sure to keep them separate from those.
- With the Top Cover assembly now unfastened from the Bottom Cover assembly, lift it up and lay it flat, being careful to not pull on the cables too much.

Step 9 — Remove the Hinges



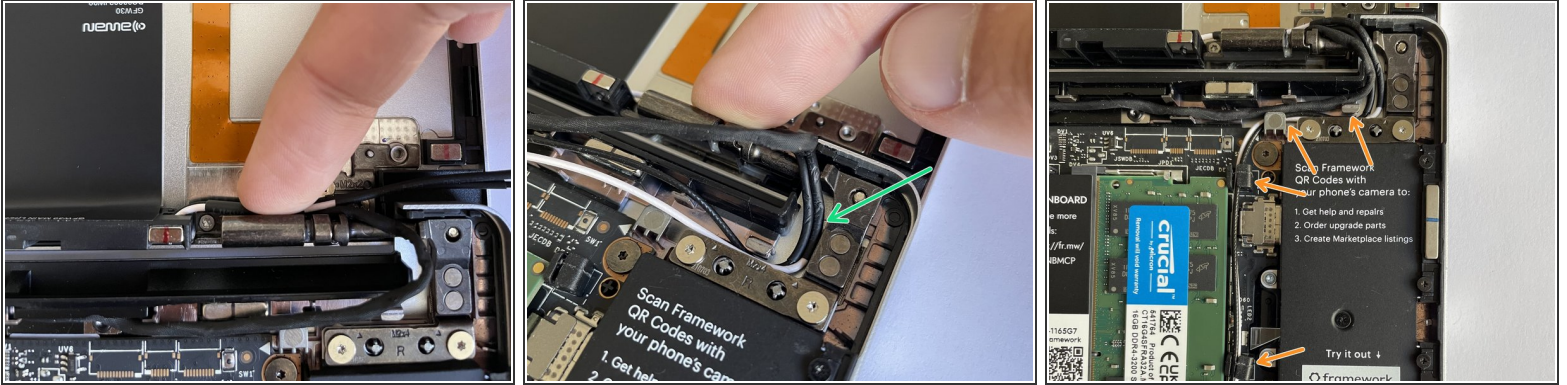
- Move the Antenna and Webcam cables out of the way carefully to make sure you have easy access to the fasteners on the right Hinge.
- Unscrew the three fasteners on the right Hinge using the T5 bit in your Framework Screwdriver, and then remove the Hinge from the Top Cover.
- Repeat this for the three fasteners on the left Hinge and remove the Hinge from the Top Cover.

Step 10 — Install the Hinges



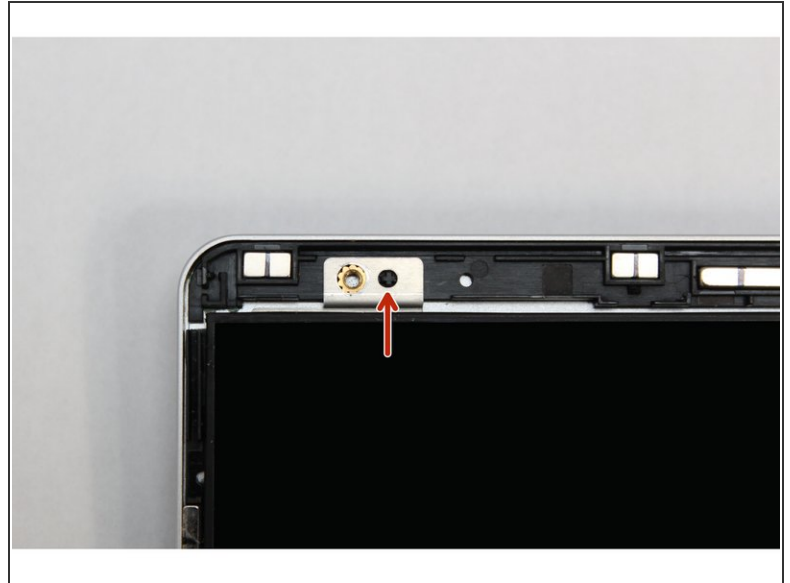
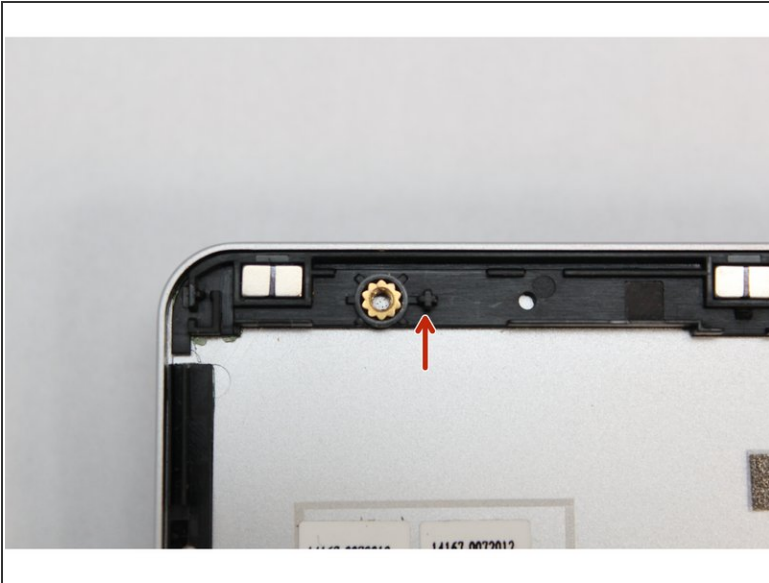
- Pre-rotate the new Hinges to a 90 degree angle to make them easier to install.
- Place the left and right Hinges into the Top Cover and fasten them into place with the three fasteners each that you previously removed.
- Carefully place the Top Cover assembly with the Hinges installed onto the Bottom Cover assembly and fasten the left and right Hinges into the Bottom Cover using two fasteners each that you previously removed.

Step 11 — Re-route the cables



- Stick the antenna cables down onto the new Hinge.
- Route the antenna cables through the hinge area, with the white and black cables sitting flat against the bottom of the Bottom Cover as much as possible. Avoid letting the cables twist or overlap, as this will interfere with the Input Cover and power button. You can use the spudger end of the Framework Screwdriver to help push the cables.
- Route the antenna cables through each of the channels and rubber brackets.

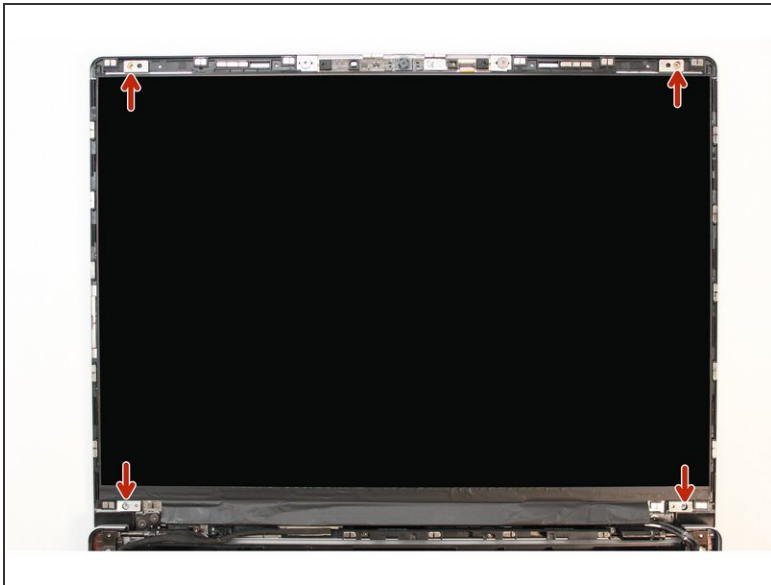
Step 12 — Re-install the Display



- There are four alignment pins located on the Top Cover. They are located right next to the four fastener slots. Place the silver brackets connected to Display directly over the pins.

⚠ Be sure to only handle the Display by the side edges and avoid touching the bottom area.

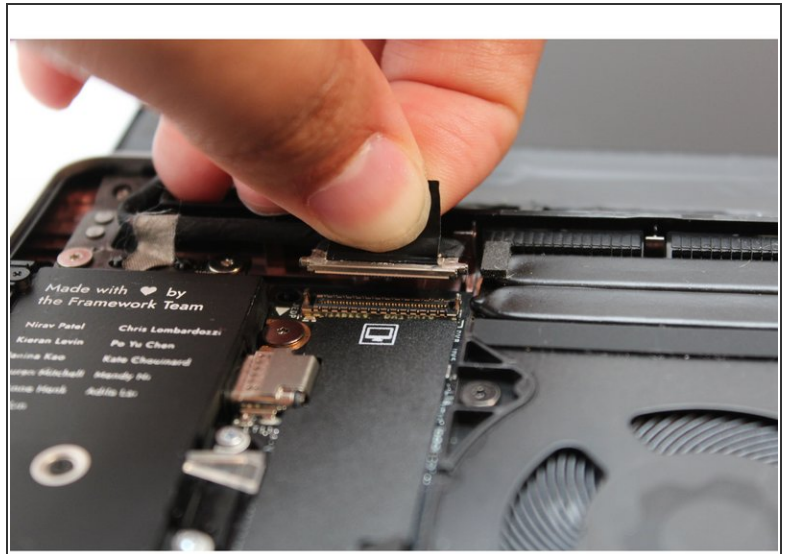
Step 13 — Screw the fasteners into the Top Cover



- Using the T5 bit in the Framework Screwdriver screw the four fasteners into place.

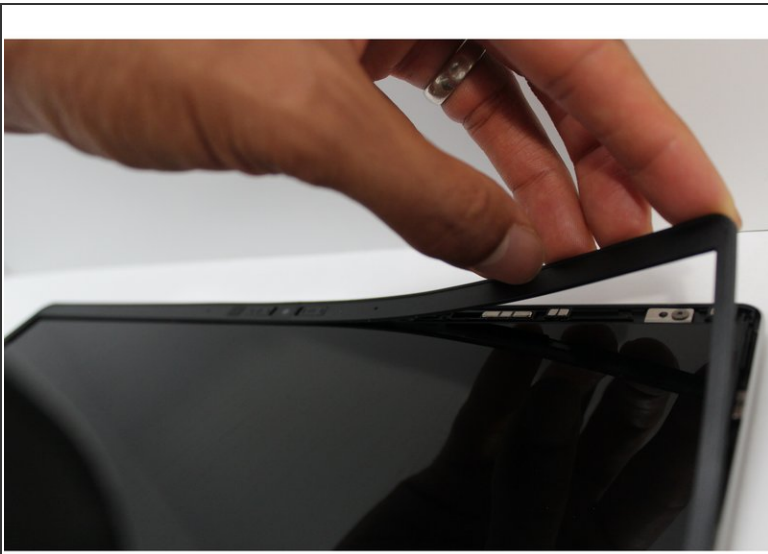
 Be sure to not over tighten the fasteners.

Step 14 — Connect the Display Cable to the Mainboard

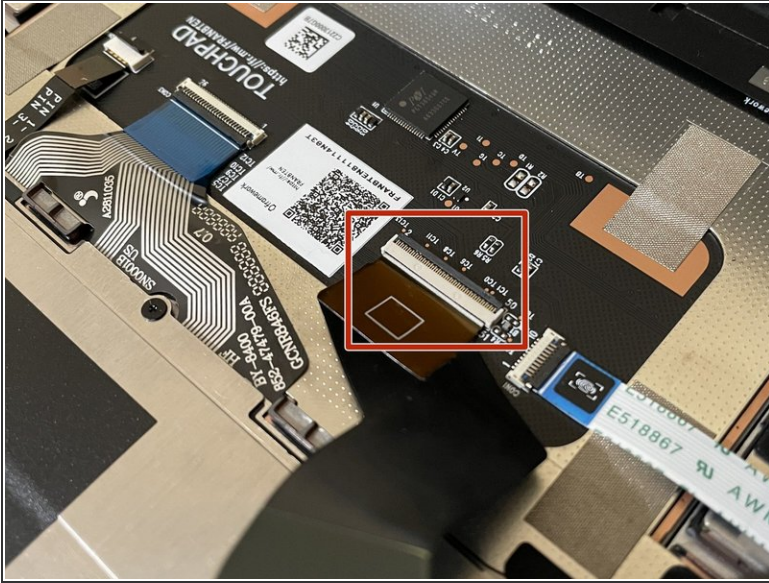


- Route the black Display Cable through the routing channel as indicated in the picture.
- Secure the silver grounding tape as indicated in the first image.
- Using the black pull tab, align the Display Cable connector with the connection on the Mainboard and firmly press down.
- The Display installation is now complete.

Step 15 — Attach the Bezel



- Open the Framework Laptop 180 degrees to attach the Bezel. Make sure the fasteners in the top left and right corners of the Bottom Cover aren't interfering with the opening.
- Align the corners of the Bezel to the display and place it down. The Bezel is attached by magnets and should easily click into place.
- Make sure that all of the corners and edges of the Bezel are fully connected to the Top Cover. If the corners are not aligned, carefully lift up the part of the bezel and guide it into place.

Step 16 — Make sure the Touchpad side of the Touchpad Cable is fully inserted

⚠ Before closing up the laptop, make sure that the Touchpad end of the Touchpad Cable is fully seated in the receptacle.

- The cable should be inserted far enough that the white line almost touches the receptacle.
- If it is not inserted far enough, you'll need to flip up the black latch on the other side of the connector, slide the cable in further, and then close the black latch again.

Step 17 — Flip the Input Cover into place



- 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 18 — Screw the fasteners into the Bottom Cover



- Close the Framework Laptop and turn it upside down to reveal the five 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.

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- Want to learn more about the Framework Laptop? Take a look at our [blog](#)
- If you have any questions or concerns, feel free to reach out to [Framework Support](#)