



MacBook Air 2022 (M2) Battery Replacement

Use this guide to replace the battery in your...

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INTRODUCTION

Use this guide to replace the battery in your MacBook Air 2022 (M2).

This repair requires replacement battery adhesive.

Note: This laptop uses a combination of standard Torx and Torx Plus (IP) screws. In the case that you don't have all the necessary Torx Plus drivers, you can use standard Torx drivers instead. If you do, make sure to use constant, downward force to avoid stripping.



TOOLS:

- [iFixit Precision Bit Driver](#) (1)
- [T5 Torx Bit](#) (1)
- [T3 Torx Bit](#) (1)
- [4IP Torx Plus Bit](#) (1)
- [3IP Torx Plus Bit](#) (1)
- [P5 Pentalobe Bit](#) (1)
- [P2 Pentalobe Bit](#) (1)
- [Tweezers](#) (1)
- [Spudger](#) (1)
- [Suction Handle](#) (1)
- [1 x Opening Picks](#) (1)
- [Isopropyl Alcohol \(90% or Greater\)](#) (1)
- [ESD Safe Blunt Nose Tweezers](#) (1)
- [Plastic Cards](#) (1)



PARTS:

- [MacBook Air 13" \(A2681, 2022\) Battery](#) (1)
- [Precut Double-Sided Adhesive Card](#) (1)
- [Stretch Release Battery Adhesive](#) (1)

Step 1 — Prepare your Macbook Air for disassembly



⚠ Before you begin, discharge your battery below 25%, as a charged lithium-ion battery can be dangerous if accidentally punctured.

- Power off your MacBook Air and unplug all cables.
- Close the display and flip the laptop upside down. Keep the lid closed until you've physically disconnected the battery.

Step 2 — Unfasten the lower case



- Use a P5 Pentalobe driver to remove the four 6.4 mm screws securing the lower case:
 - Two screws with a **short threaded portion** near the hinges
 - Two screws with a **long threaded portion** near the front of the MacBook
- ⓘ Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from.

Step 3 — Insert an opening pick



- Apply a suction handle to the center of the lower case's front edge.
- Pull up on the suction handle with strong, steady force to create a small gap between the lower case and the frame.
- Insert an opening pick into the gap.

Step 4 — Release the snapping clips



① During the next two steps you'll feel and hear [four snapping clips](#) release. If a clip doesn't release, insert your opening pick farther and try again.

- Slide the pick to the bottom right corner to release the first clip.
- Slide the pick around the corner and up the right edge to release the next clip.

Step 5



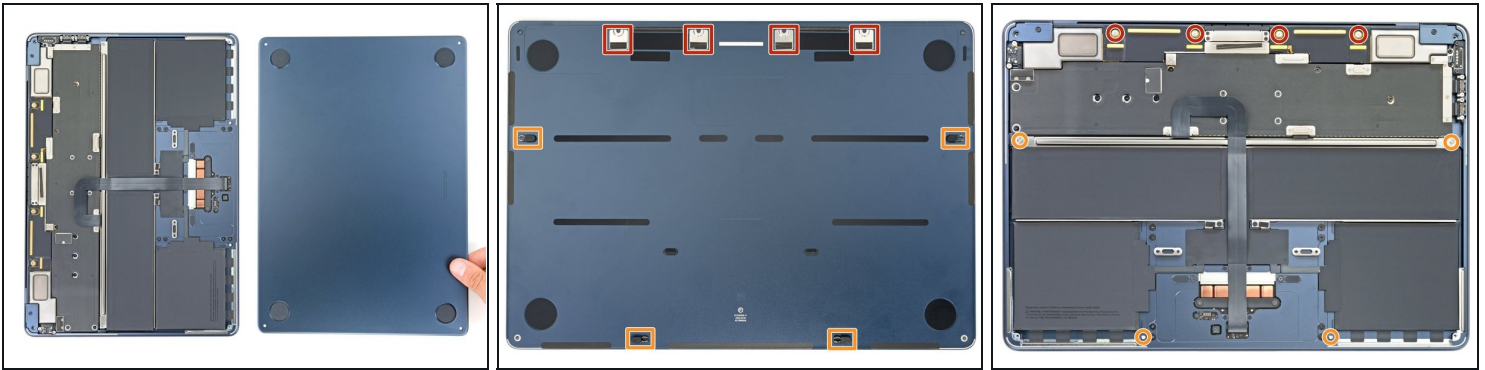
- Insert the opening pick in the original gap created with the suction handle.
- Slide the opening pick to the bottom left corner and up the left edge to release the two remaining snapping clips.

Step 6 — Release the sliding tabs



- ① [Four sliding tabs](#) along the back edge of the MacBook firmly secure the lower case. Separating these tabs requires a lot of force—consider using gloves to protect your hands from the sharp edges of the lower case.
 - Keep the lower case flat and firmly pull it straight away from the back edge, one corner at a time, to disengage the sliding tabs.
- ⚠ Don't pull up until the cover is completely separated.

Step 7 — Remove the lower case



- Remove the lower case.

★ During reassembly:

- Set the lower case in place and align the sliding tabs with the screw heads they slide over. Press down and slide the lower case toward the back edge to engage the tabs—it'll stop sliding as the tabs engage.
 - ⓘ When one side is engaged, it may push the other out of alignment. Check both sides as you push, there should be no gap along the back edge.
- Once the lower case is flush with the frame, press down firmly along the perimeter to engage the four snapping clips.
 - ⓘ You'll hear and feel a distinct click as each clip snaps into place.

Step 8 — Remove the battery connector cover



- Use a T3 Torx driver to remove the two 1.5 mm screws securing the battery connector cover.

Step 9



- Remove the battery connector cover.

Step 10 — Disconnect the battery



- Use an opening pick to pry up and disconnect the battery [press connector](#).
- ① To reconnect a press connector, align it over the socket and gently press down on one side until it clicks into place, then press down on the other side. It might take a few tries to align the connector.

Step 11 — Unfasten the trackpad cable cover



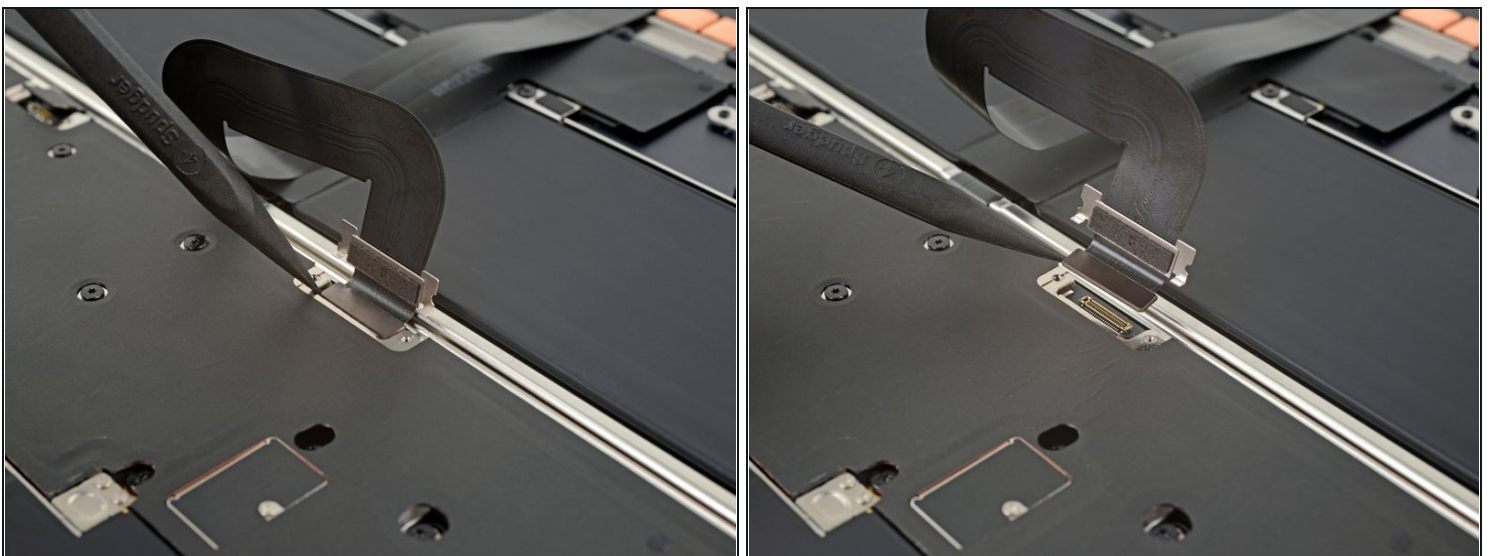
- Use a T3 Torx driver to remove the two 1.5 mm screws securing the trackpad cable cover.

Step 12 — Access the trackpad press connector



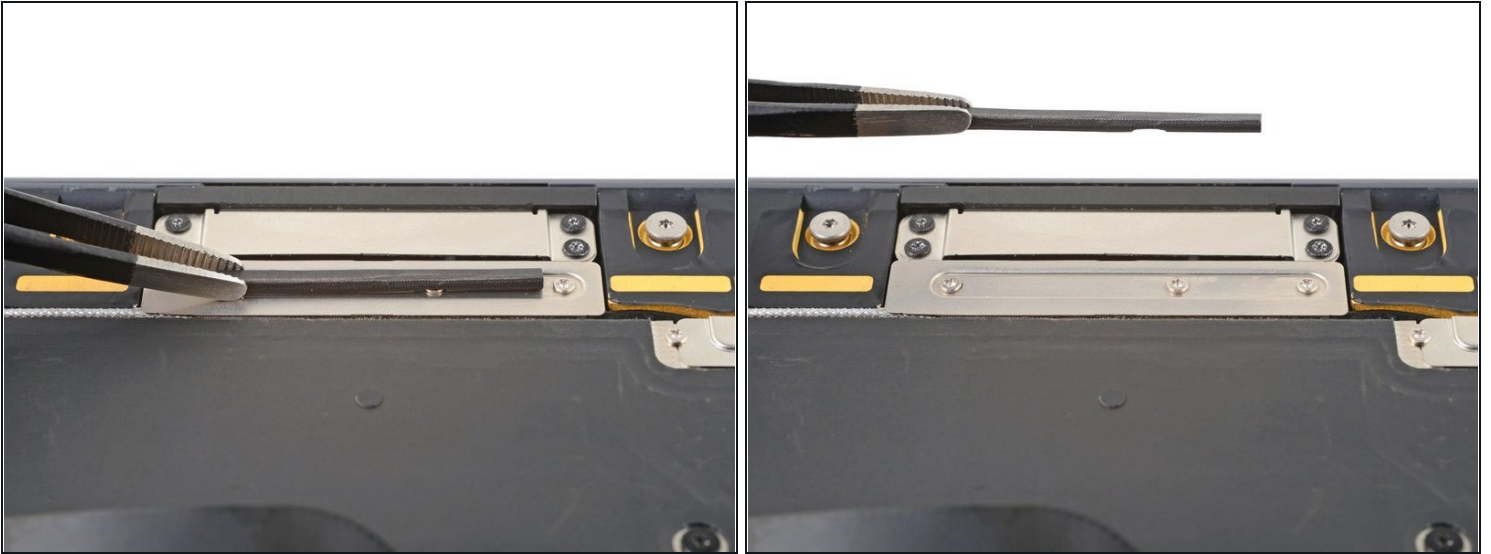
- Use a spudger or your fingers to move the trackpad cable cover out of the way so you can access the press connector underneath.

Step 13 — Disconnect the trackpad cable



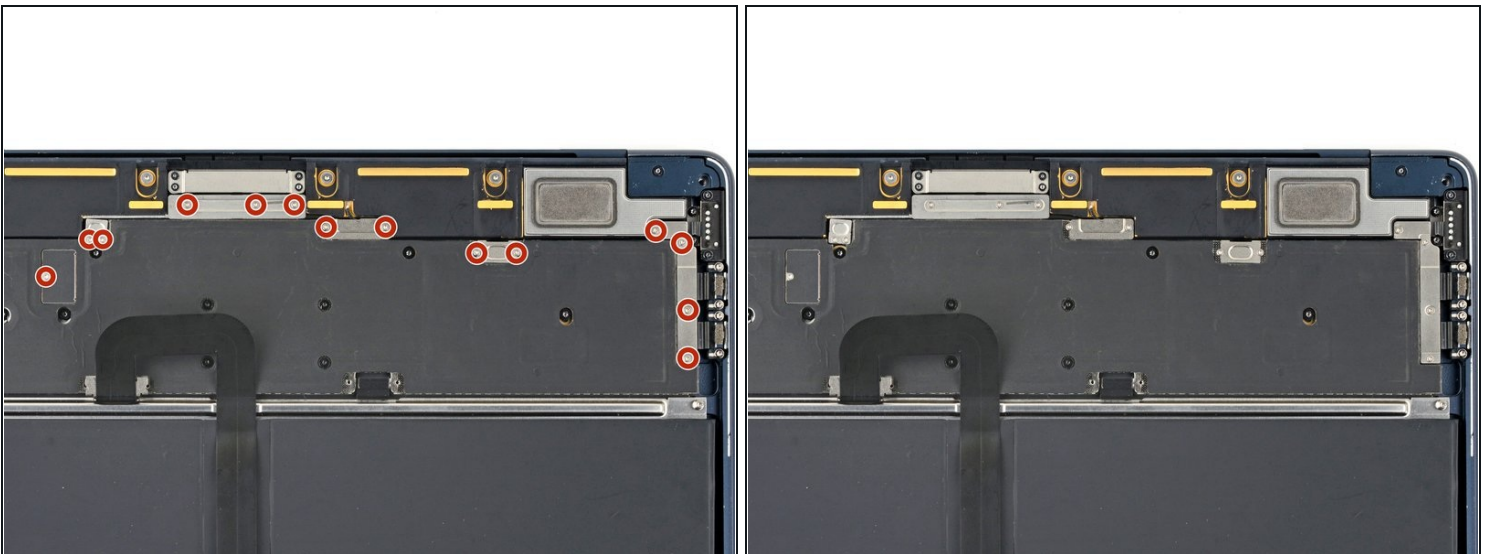
- Use the pointed end of a spudger to pry up and disconnect the trackpad cable press connector.
- ☑ To re-attach [press connectors](#) like this one, carefully align and press down on one side until it clicks into place, then repeat on the other side. Do not press down in the middle. If the connector is misaligned, the pins can bend and cause permanent damage.

Step 14 — Remove the display cable cover foam



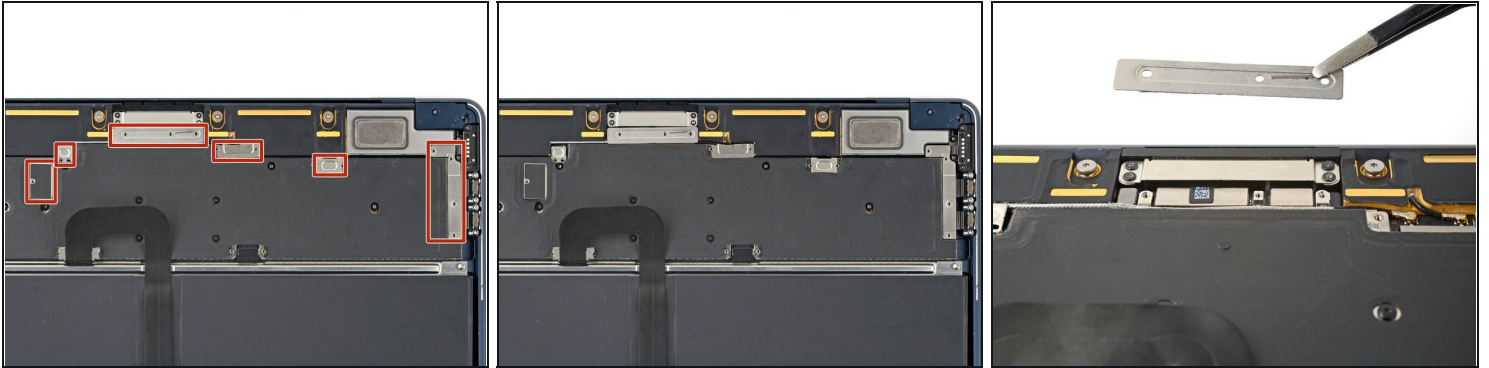
- Peel up and remove the foam pad from the lower display cable cover to reveal a hidden screw.

Step 15 — Remove the cable covers



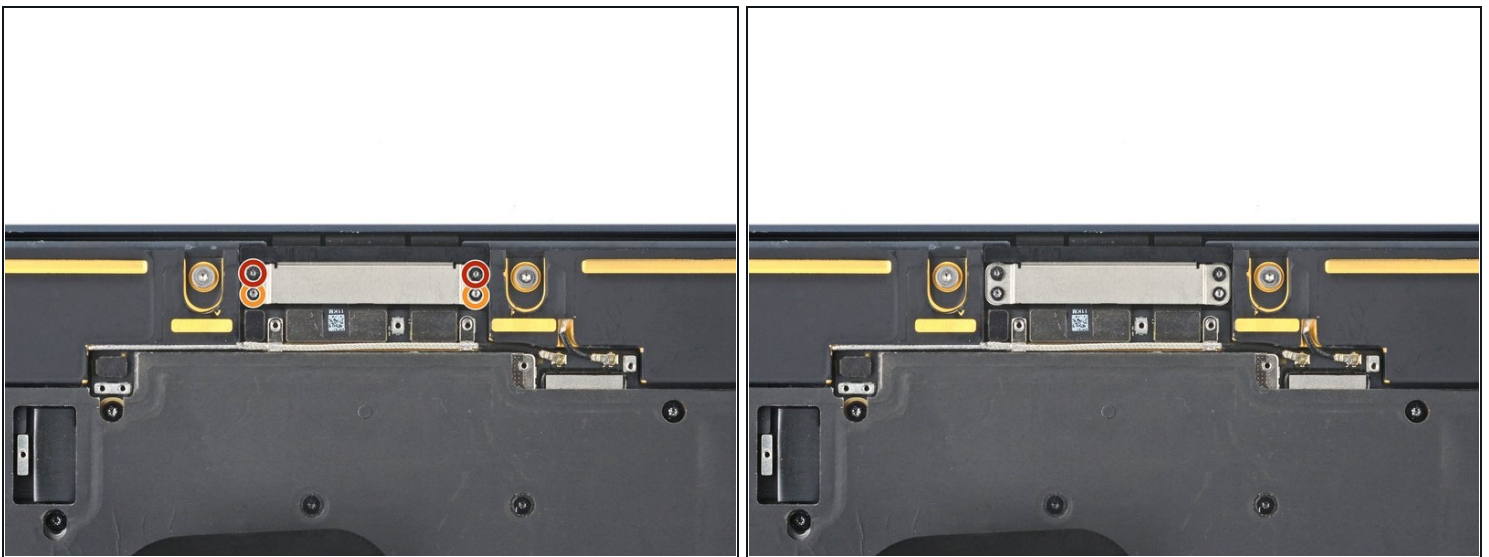
- Use a T3 Torx driver to remove the fourteen 1.5 mm screws securing the various cable covers.

Step 16



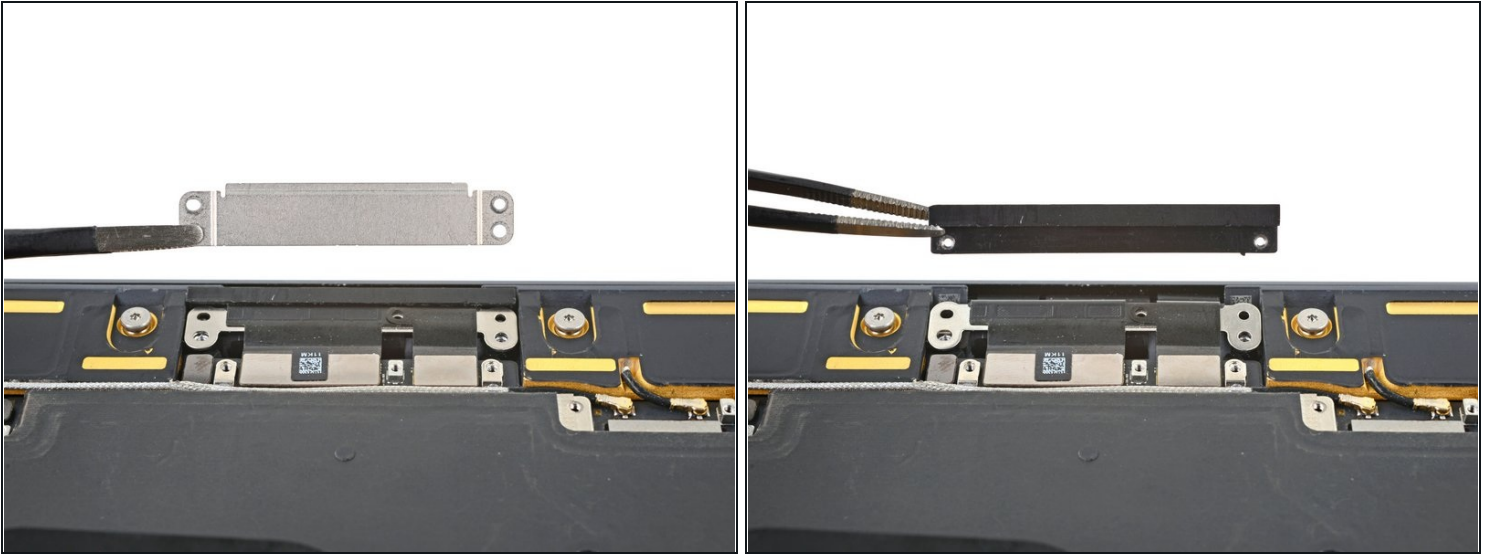
- Use [tweezers](#) or your fingers to remove the six cable covers.

Step 17



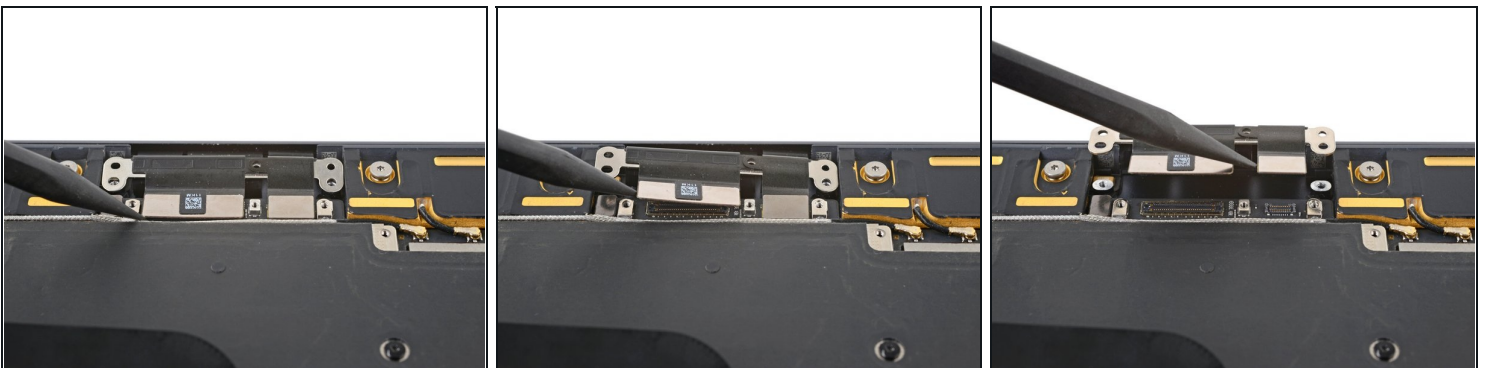
- Remove the four screws securing the upper display cable cover:
 - Two 2.5 mm P2 Pentalobe screws
 - Two 2.5 mm 3IP Torx Plus screws
- ☑ During reassembly, the Pentalobe screws must thread into their holes on the plastic securing bracket.

Step 18



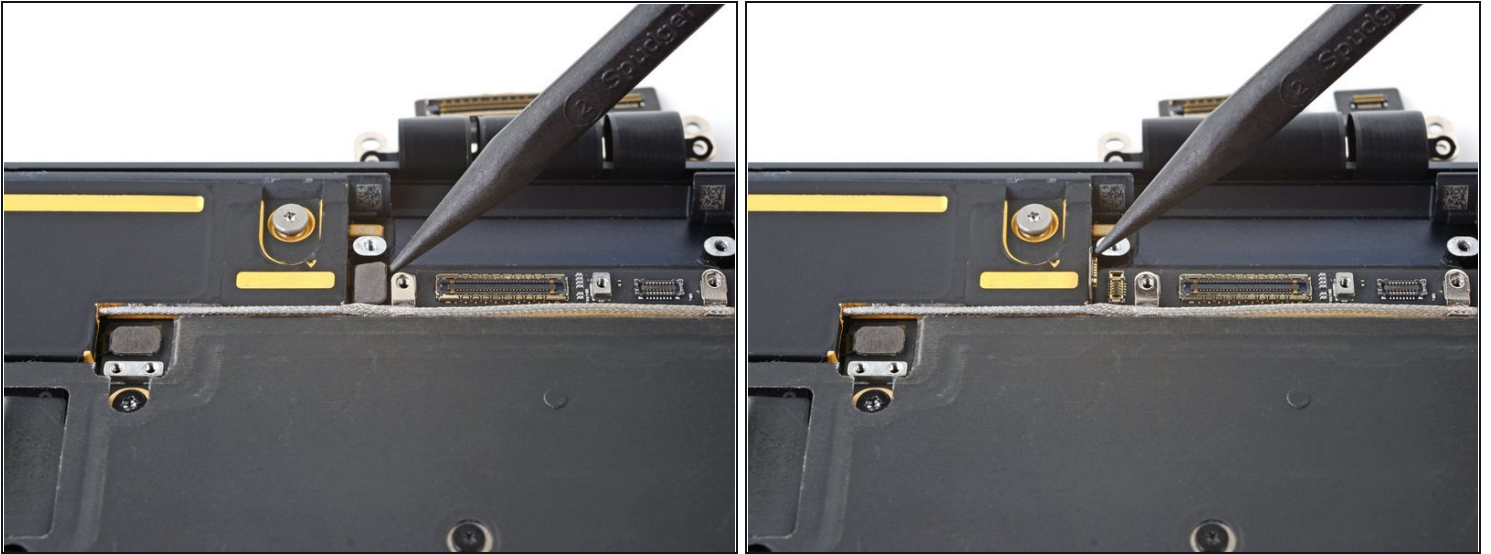
- Remove the upper display cable cover and plastic securing bracket.
- ☑ During reassembly, make sure that the upper lip of the metal cable cover [slots into the plastic bracket](#).

Step 19 — Disconnect the logic board connectors



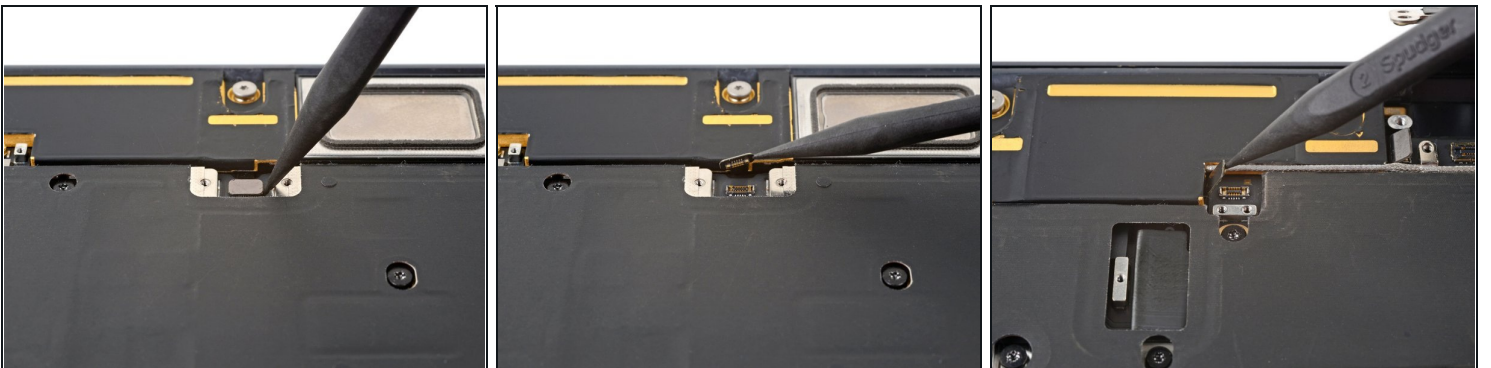
- Use the pointed end of a spudger to pry up and disconnect both display cable press connectors.

Step 20



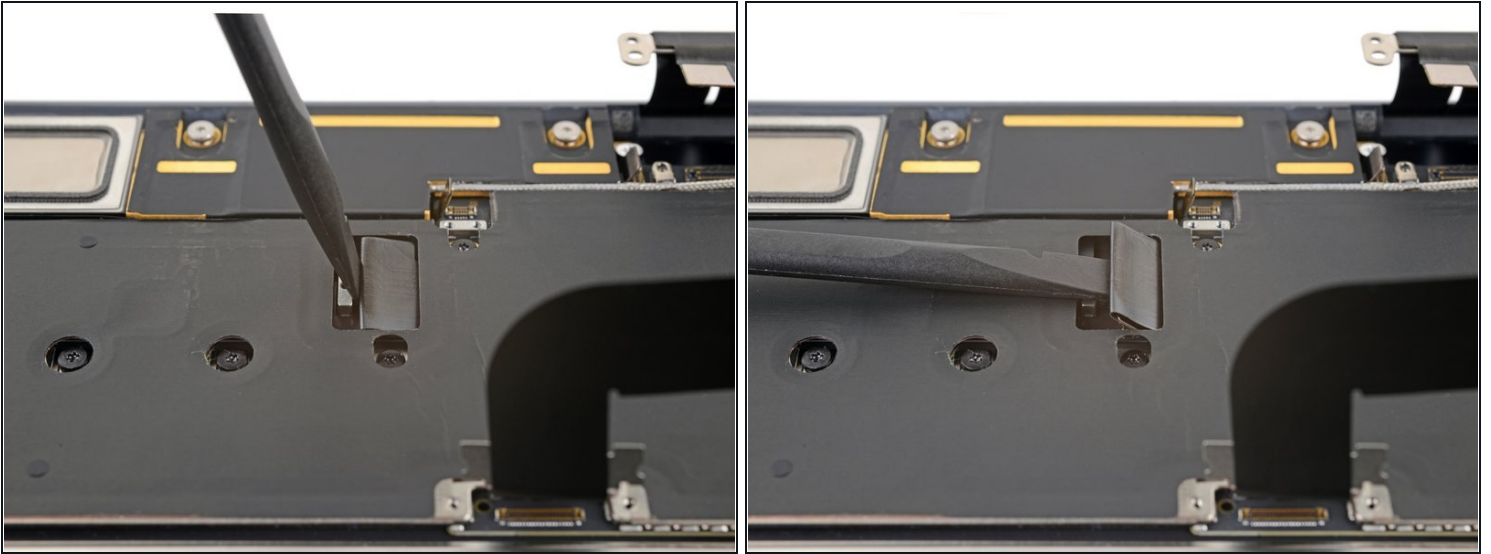
- Disconnect the microphone array press connector, directly to the left of the display cable.

Step 21



- Disconnect the left and right speaker press connectors.

Step 22



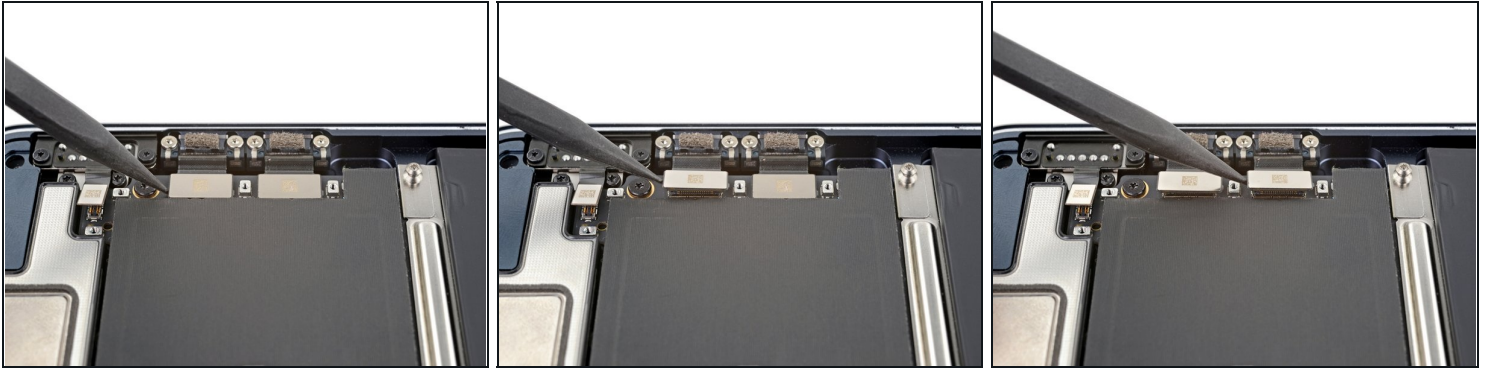
- Insert the flat end of a spudger between the the interconnect cable and the screw post.
- Pry up and disconnect the interconnect cable.

Step 23



- Disconnect the MagSafe port press connector.

Step 24



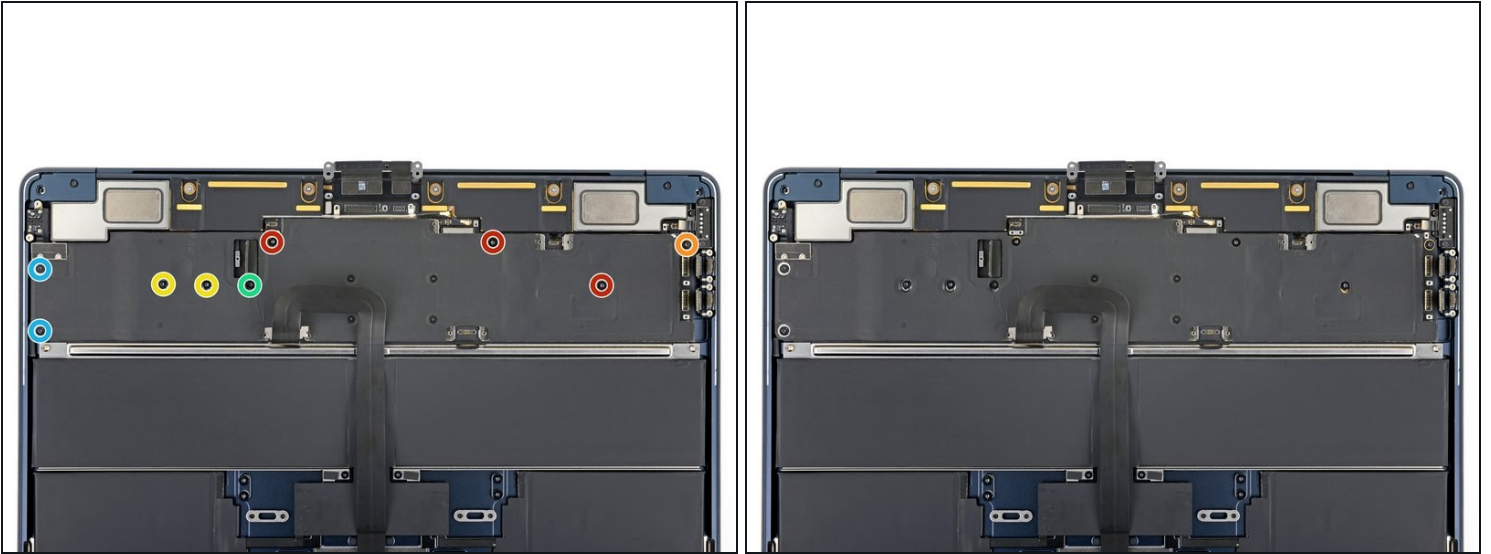
- Disconnect both Thunderbolt port press connectors.

Step 25



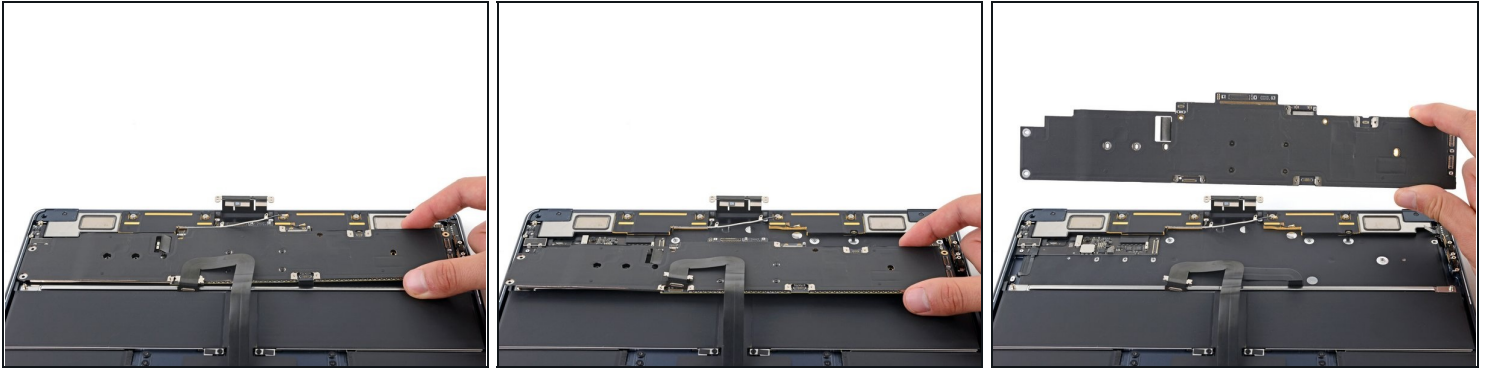
- Use a pair of tweezers to grip the first antenna connector, as close to its base as possible.
 - Lift straight up to disconnect the cable.
 - ⚠ The antenna connectors on the logic board are very fragile. When disconnecting the cables, pull straight up—don't bend them to the side.
 - Repeat for the second antenna cable.
- ★ To reattach [antenna connectors](#) like these, align the connector over its socket and press down with the flat end of a spudger. The connector should snap into place. This can be tricky and may take a few tries.

Step 26 — Unfasten the logic board



- Remove the nine screws securing the logic board:
 - Three 3.8 mm T5 Torx screws
 - One 3.6 mm T5 Torx screw
 - Two 3.4 mm T5 Torx screws
 - One 3.1 mm T5 Torx screw
 - Two 2.7 mm 3IP Torx Plus screws

Step 27 — Remove the logic board

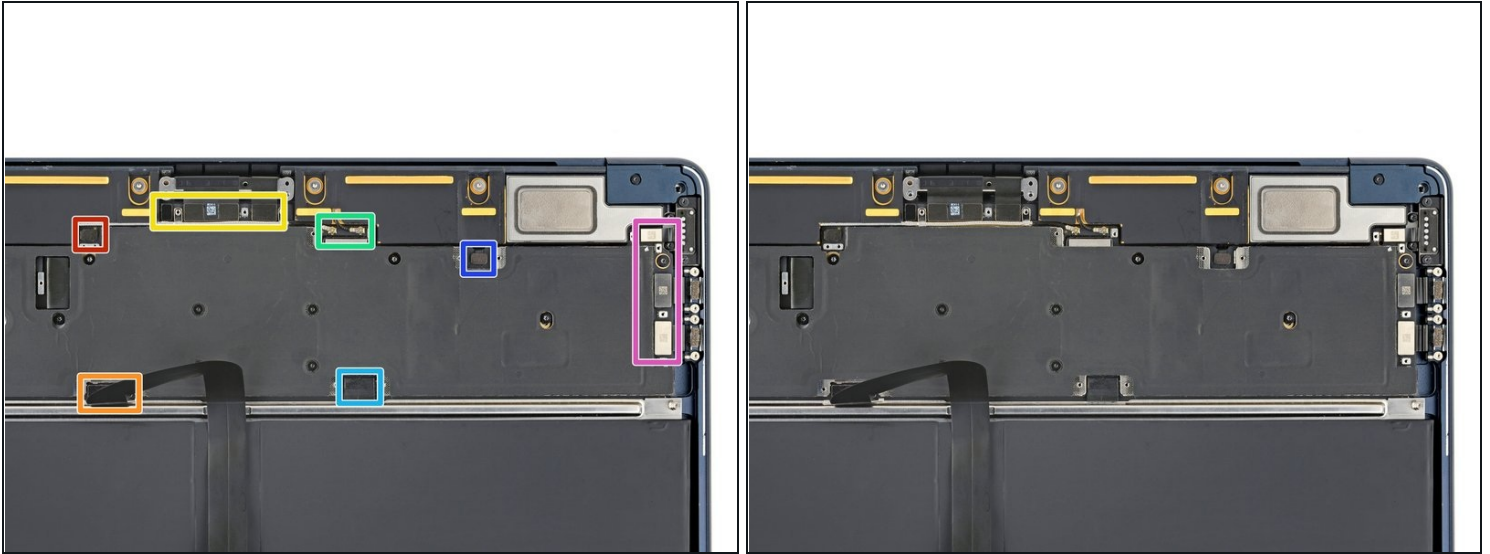


ⓘ The logic board and its cover are connected and remove as one assembly.

⚠ The cover extends out from the logic board's left edge and bends easily. Don't pull the board up from this side.

- Grip the **right side** of the logic board and slide it towards the trackpad until it clears the overhangs near the speakers.
- Remove the logic board.

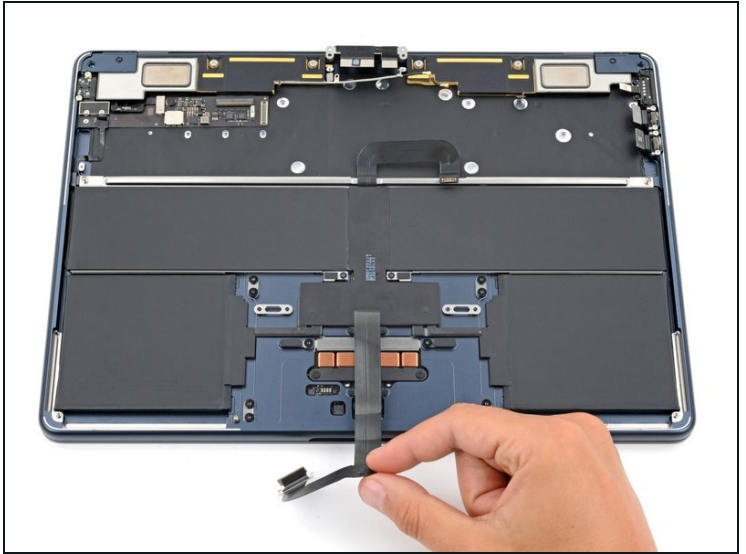
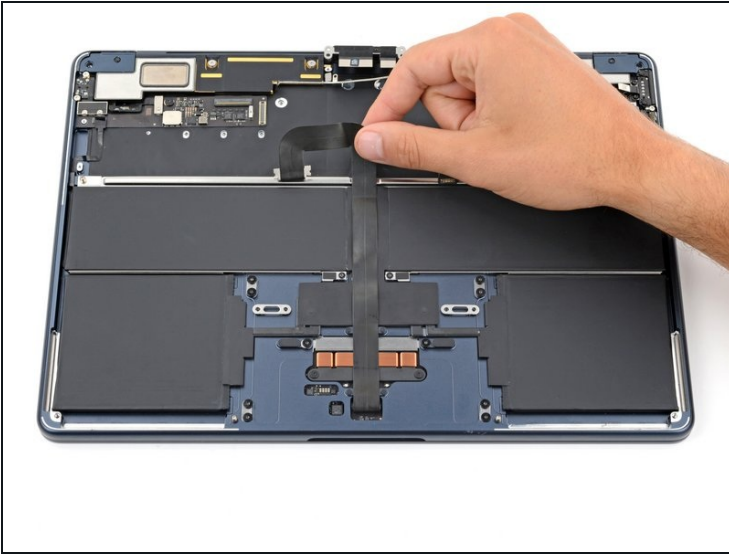
Step 28 — Check cables during reassembly



★ When you reinstall the logic board, verify that no cables get trapped under the board as you lower it into place. Check each of the seven locations carefully:

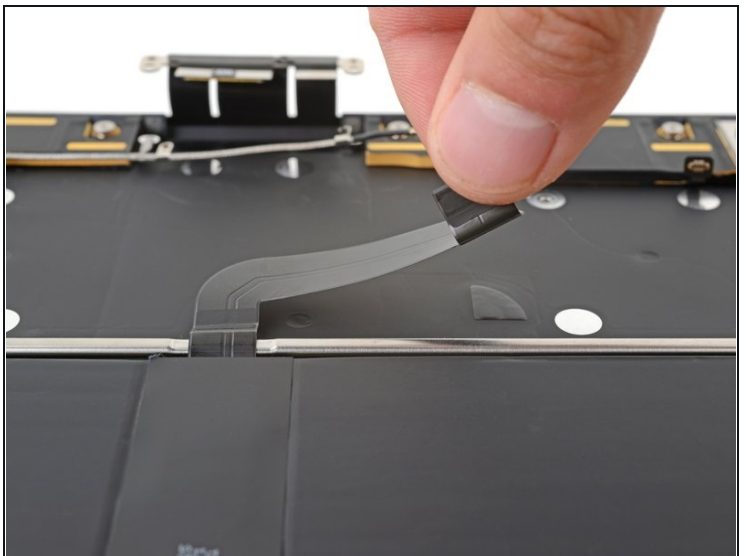
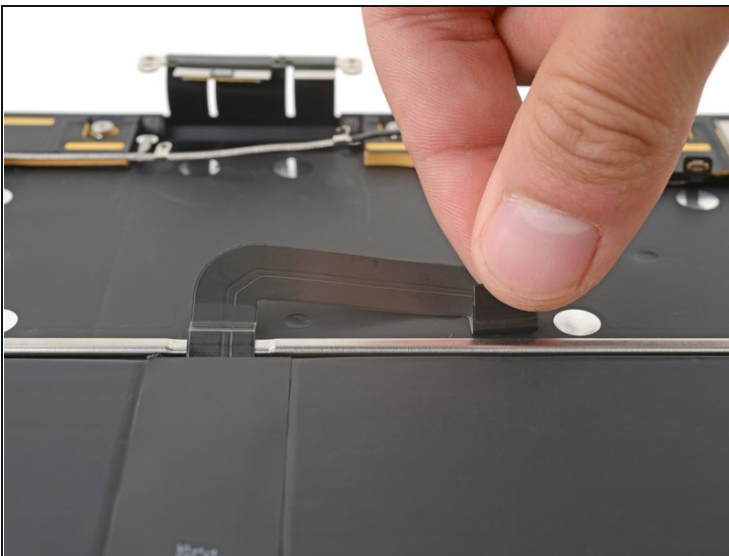
- Right speaker cable
- Trackpad cable
- Display cables and microphone array cable
- Antenna cables
- Battery cable
- Left speaker cable
- USB-C and MagSafe cables

Step 29 — Reposition the trackpad cable



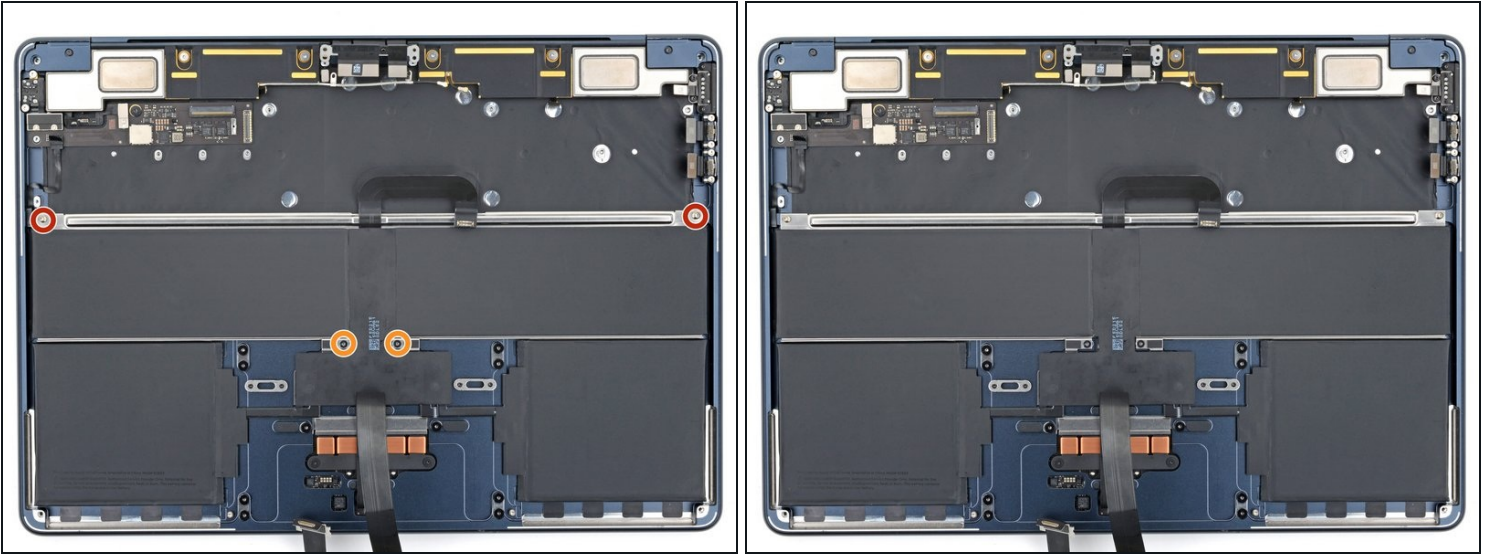
- Reposition the trackpad cable over the bottom edge of the MacBook so it's out of the way of the battery.

Step 30 — Detach the battery cable



- ① A small amount of adhesive secures the right side of the battery cable to the frame.
- Lift and detach the battery cable from the frame.

Step 31 — Unfasten the battery tray



- Use a 4IP Torx Plus driver to remove the two 4.5 mm screws securing the upper edges of the battery tray.
- Use a 3IP Torx Plus driver to remove the two screws securing the center of the battery tray.

Step 32 — Adhesive strip information



① The MacBook's battery cells are attached to a [metal tray](#) as a complete assembly. This tray is secured to the frame by eight stretch-release adhesive strips:

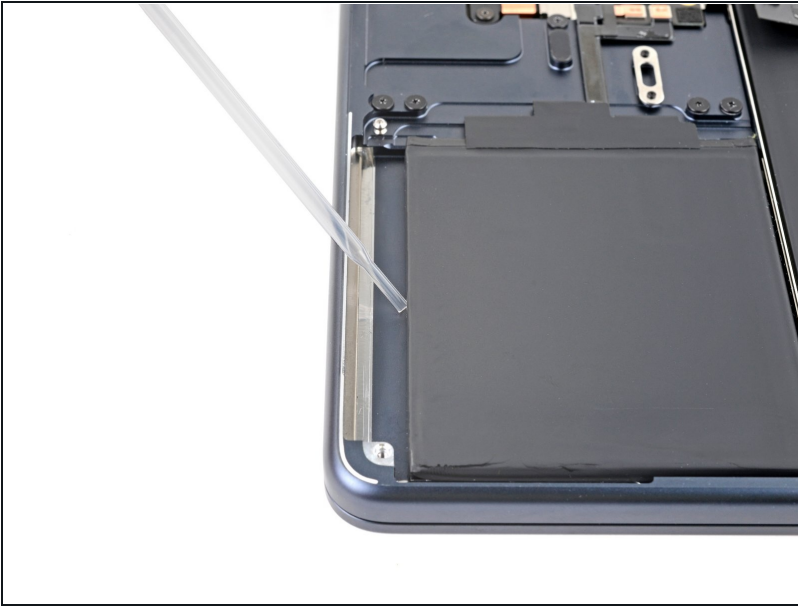
- Four on the bottom left corner
- Four on the bottom right corner

Step 33 — Remove the stretch release adhesive



- Use a pair of [tweezers](#) to peel up the black pull tab on one of the stretch-release adhesive strips until you can grip it with your fingers.
- Pull the strip out from under the battery at a shallow angle. Go very slow and use steady force, giving the strip plenty of time to stretch and unstick itself from under the battery tray.
 - ① You may have to re-grip the adhesive closer to the laptop and continue pulling multiple times—the adhesive will stretch a lot.
- Pull the adhesive strip until it's completely freed from underneath the battery tray.
- Repeat for the seven remaining adhesive strips.

Step 34 — Apply isopropyl alcohol



- ① If you removed all the stretch-release adhesive, congratulations! You can [skip the next two steps](#). If any strips broke and the battery is still stuck in place, follow the next two steps to remove the remaining adhesive.
- Apply a few drops of high concentration (greater than 90%) isopropyl alcohol between the edge of the frame and the battery where any adhesive strips remain.
- Wait one minute for the isopropyl alcohol to soften the adhesive.

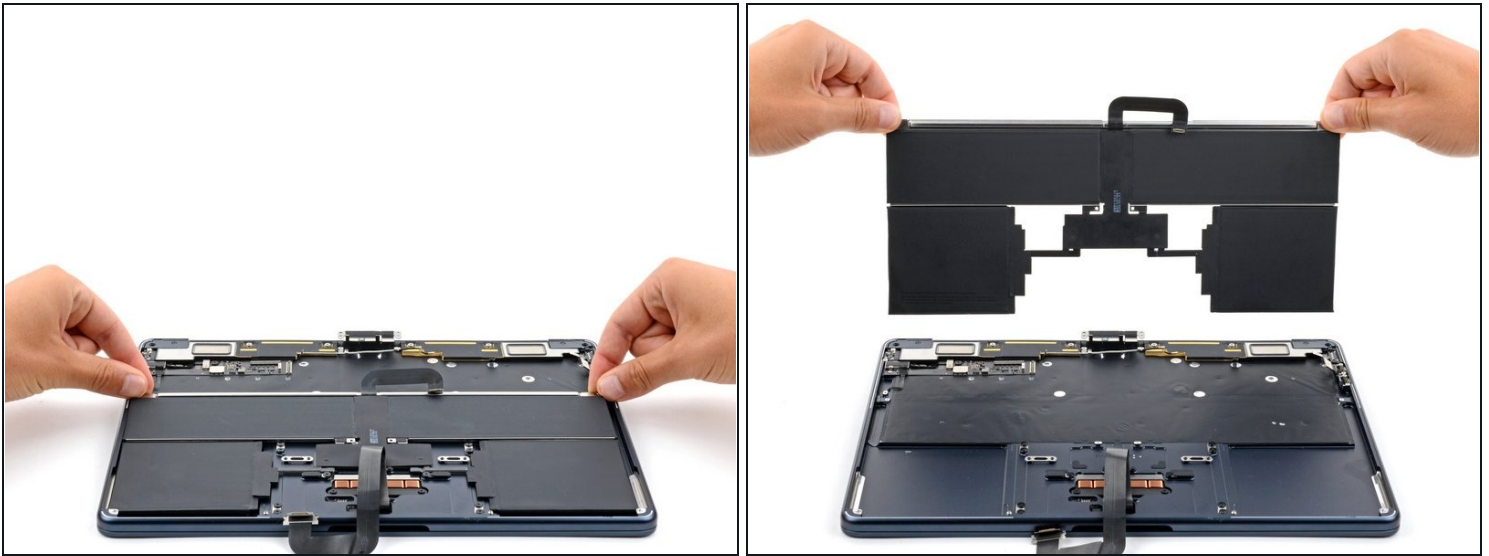
Step 35



⚠ Make sure your [plastic card](#) is underneath the battery tray, and not between the battery and the tray. Don't attempt to remove the battery cells from the metal tray.

- Insert a plastic card underneath the battery's metal tray.
- Push the plastic card underneath the metal tray and slide it back and forth to slice the remaining adhesive. You may need to lift the battery cell to reach the adhesive.
- ① If you're struggling to remove the remaining adhesive, apply more isopropyl alcohol and try again.

Step 36 — Remove the battery



- Remove the battery assembly.

During reassembly:

- Remove any remaining adhesive strips with tweezers or your fingers.
- Clean up the adhesive residue with a few drops of isopropyl alcohol and a lint-free or microfiber cloth.
- Before removing any adhesive liners, place the battery in its recess and make sure it fits.
- If your replacement battery comes with adhesive, remove the plastic liners and firmly press each cell into place.
- If your replacement battery doesn't come with adhesive, secure it with [stretch-release adhesive](#).
- ① Alternatively, you may use strong double-sided tape such as [Tesa Tape](#) to secure the battery.

Compare your new replacement part to the original part—you may need to transfer remaining components or remove adhesive backings from the new part before you install it.

To reassemble your device, follow these instructions in reverse order.

For optimal performance, [calibrate your newly installed battery](#) after completing this guide.

If you notice any unusual behavior or problems after installing your new battery, you may need to [reset your MacBook's SMC](#).

Take your e-waste to an [R2 or e-Stewards certified recycler](#).

Repair didn't go as planned? Try some [basic troubleshooting](#) or check out our [Answers community](#) for help.