



iPad Pro 12.9" Battery Replacement

This guide shows how to remove and replace a...

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INTRODUCTION

This guide shows how to remove and replace a worn out battery for the iPad Pro 12.9". The battery is tucked under the logic board. As part of the procedure, you'll be moving the logic board out of the way in order to remove the battery.

This iPad uses both stretch-release and normal adhesives to hold the battery in place. Use plenty of high concentration isopropyl alcohol or iFixit adhesive remover to help remove the battery and to clean any adhesive residue.

For your safety, discharge your battery below 25% before disassembling your device. This reduces the risk of a dangerous thermal event if the battery is accidentally damaged during the repair. If your battery is swollen, [take appropriate precautions](#).

TOOLS:

- Anti-Clamp (1)
- Phillips #00 Screwdriver (1)
- Suction Handle (1)
- Spudger (1)
- iOpener (1)
- Tweezers (1)
- Plastic Cards (1)
- iFixit Opening Picks (Set of 6) (1)
- Coffee Filters or a lint-free cloth (1)
- Isopropyl Alcohol (1)
- Deck of Cards (1)
- Masking Tape (1)
- iFixit Adhesive Remover (1)
- Waxed Dental Floss (1)
- Battery Blocker (1)
- Halberd Spudger (1)
- Packing Tape (1)
- Safety Glasses (1)
- ESD Safe Blunt Nose Tweezers (1)

optional

PARTS:

- iPad Pro 12.9" (2015) Adhesive Strips (1)
- iPad Pro 12.9" (2015) Battery (1)
- Tesa 61395 Tape (1)

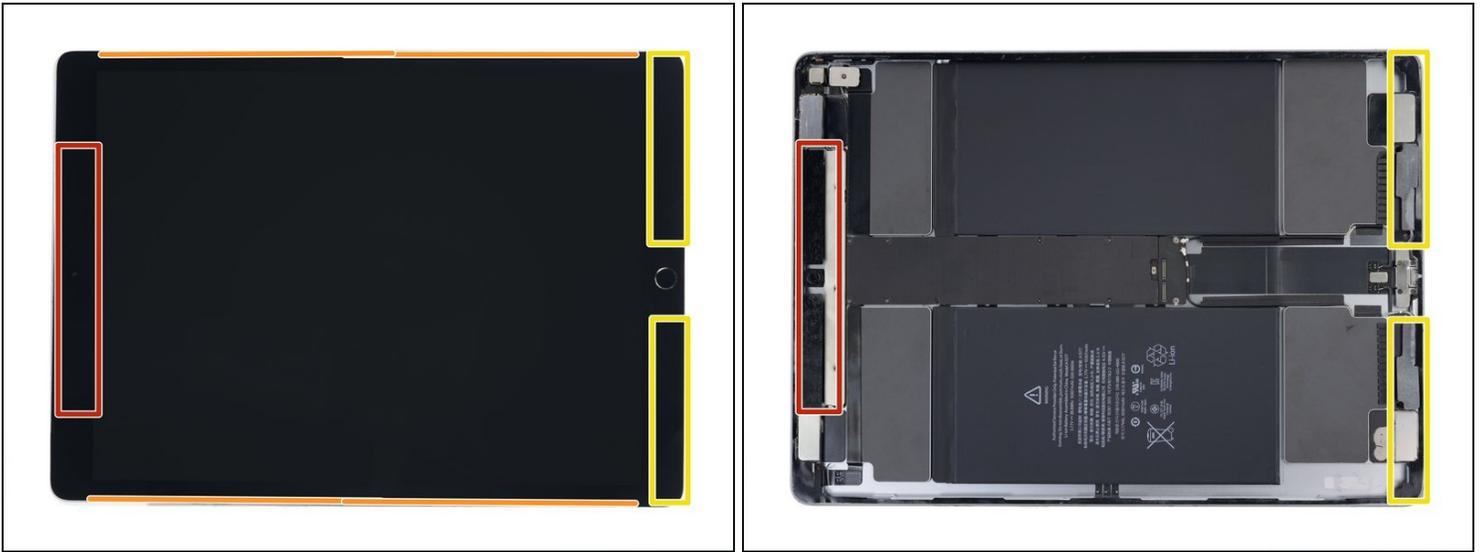
Step 1 — Tape over a cracked screen



- Completely power down your iPad before you begin.
- If your screen is cracked, lay overlapping strips of clear packing tape over the iPad's screen until the whole face is covered.
 - ⓘ This will keep glass shards contained and provide structural integrity when prying and lifting the screen.
- Do your best to follow the rest of the guide as described. However, once the glass is broken, it will likely continue to crack as you work, and you may need to use a metal prying tool to scoop the glass out.

⚠ Wear safety glasses to protect your eyes, and be careful not to damage the LCD screen.

Step 2 — Adhesive tip



- ① Removing the screen involves using an opening pick or halberd spudger to separate the adhesive securing the screen to the frame.
- As you slice through the adhesive, note the following:
 - The top has a large patch of thick adhesive. You'll need to slice 1/2" deep in order to cut the adhesive.
 - Don't slice deeper than 2 mm along the long edges of the iPad, or you risk damaging the display panel.
 - The lower edge also has thick patches of adhesive, but there are [delicate flex cables](#) in each corner. Don't slice deeper than 1/4" around the lower corners.
- ① To help mark the iPad's orientation, you can apply a piece of tape to the top edge of the iPad screen.

Step 3 — Heat the left edge



- [Heat an iOpener](#) and lay it over the left edge of the iPad to soften the adhesive holding the screen in place.
 - ⓘ Alternatively, you can use a heat gun, hair dryer, or heat pad. Be careful not to overheat the iPad—the display and internal battery are both susceptible to heat damage.
- Wait two minutes for the adhesive to soften before proceeding to the next step. The edge should be slightly too hot to the touch.

Step 4 — Anti-Clamp instructions



- ① The next three steps demonstrate the [Anti-Clamp](#), a tool we designed to make the opening procedure easier. **If you aren't using the Anti-Clamp, skip down three steps for an alternate method.**
- ① For complete instructions on how to use the Anti-Clamp, [check out this guide](#).
- Pull the blue handle backwards to unlock the Anti-Clamp's arms.
- Place an object under your iPad so it rests level between the suction cups.
- Position the suction cups near the middle of the left edge—one on the top, and one on the bottom.
- Hold the bottom of the Anti-Clamp steady and firmly press down on the top cup to apply suction.
- ① If you find that the surface of your iPad is too slippery for the Anti-Clamp to hold onto, [use tape](#) to create a grippier surface.

Step 5



- Pull the blue handle forward to lock the arms.
- Turn the handle clockwise 360 degrees or until the cups start to stretch.
- Make sure the suction cups remain aligned with each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.

Step 6



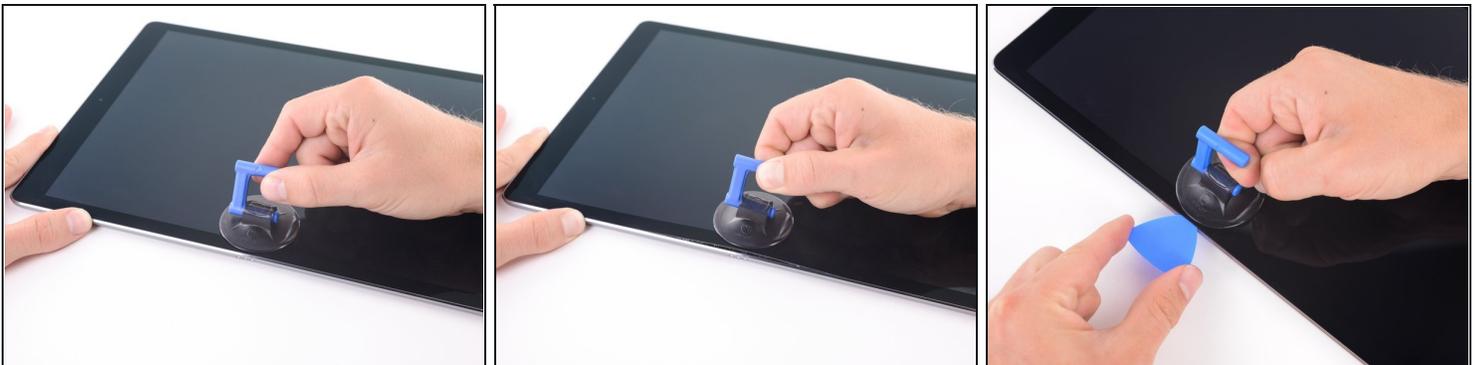
- Wait one minute to give the adhesive a chance to release and present an opening gap.
 - If your screen isn't getting hot enough, you can use a hair dryer to heat along the left edge of the iPad.
 - ⓘ For complete instructions on how to use a hair dryer, [check out this guide](#).
 - Insert an opening pick under the screen when the Anti-Clamp creates a large enough gap.
 - ⓘ If the Anti-Clamp doesn't create a sufficient gap, apply more heat to the area and rotate the handle clockwise half a turn.
- ⚠ Don't crank more than a half a turn at a time, and wait one minute between turns. Let the Anti-Clamp and time do the work for you.**
- **Skip the next two steps.**

Step 7 — Loosen the screen adhesive



- Attach a suction cup to the left edge of the iPad's screen, above the Smart Connector port.

Step 8



- While holding down the corners of the iPad, repeatedly pull up on the screen, then ease it back down to weaken the adhesive. This will eventually create a small gap in the seam.
 - ⓘ If the edge cools down during the pulling process, reheat the edge with an iOpener before proceeding.
- Once you've created a small gap, insert the tip of an opening pick into the gap.
 - ⚠ Don't insert the pick more than 2 mm, or you risk permanently damaging the display panel.

Step 9



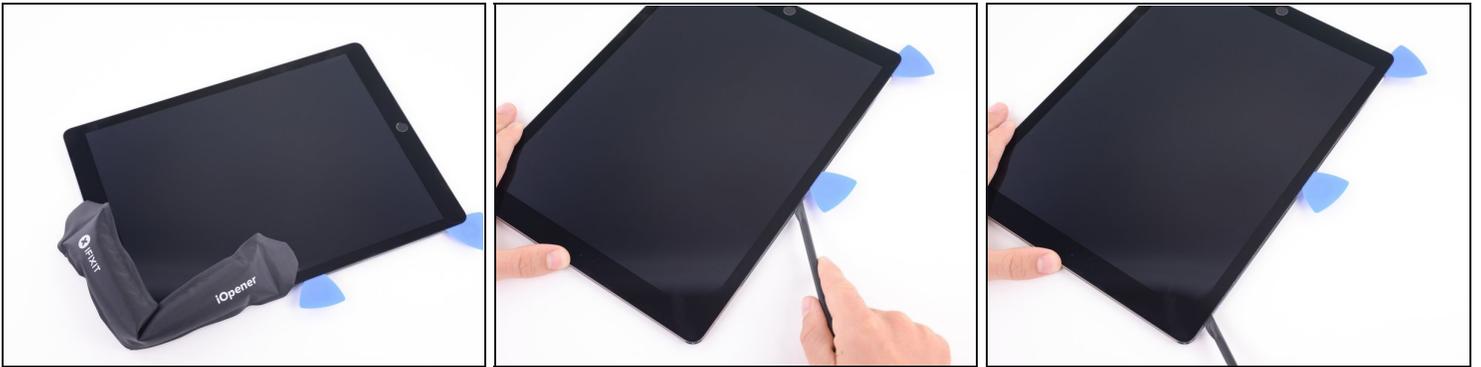
- Lay a hot iOpener along the bottom left corner of the iPad, spanning from the opening pick to the home button.
- After letting the adhesive soften, insert an opening pick or halberd spudger into the gap next to the Smart Connector.
⚠ Be careful not to insert the halberd spudger more than 2 mm.
- Use an opening pick or halberd spudger to slice the adhesive along the bottom left side of the iPad. If the slicing becomes difficult, reheat the edge and try again.

Step 10



- Insert a pick in the bottom left corner of the iPad to prevent the adhesive from resealing.

Step 11



- Lay a hot iOpener along the upper left corner of the iPad, spanning from the opening pick to the front-facing camera. Wait a minute to let the adhesive soften.
 - Use an opening pick to slice the adhesive along the upper left side of the iPad. If the slicing becomes difficult, reheat the edge and try again.
- ⚠ Be careful not to insert the opening pick more than 2 mm as you slice along the left edge.**

Step 12



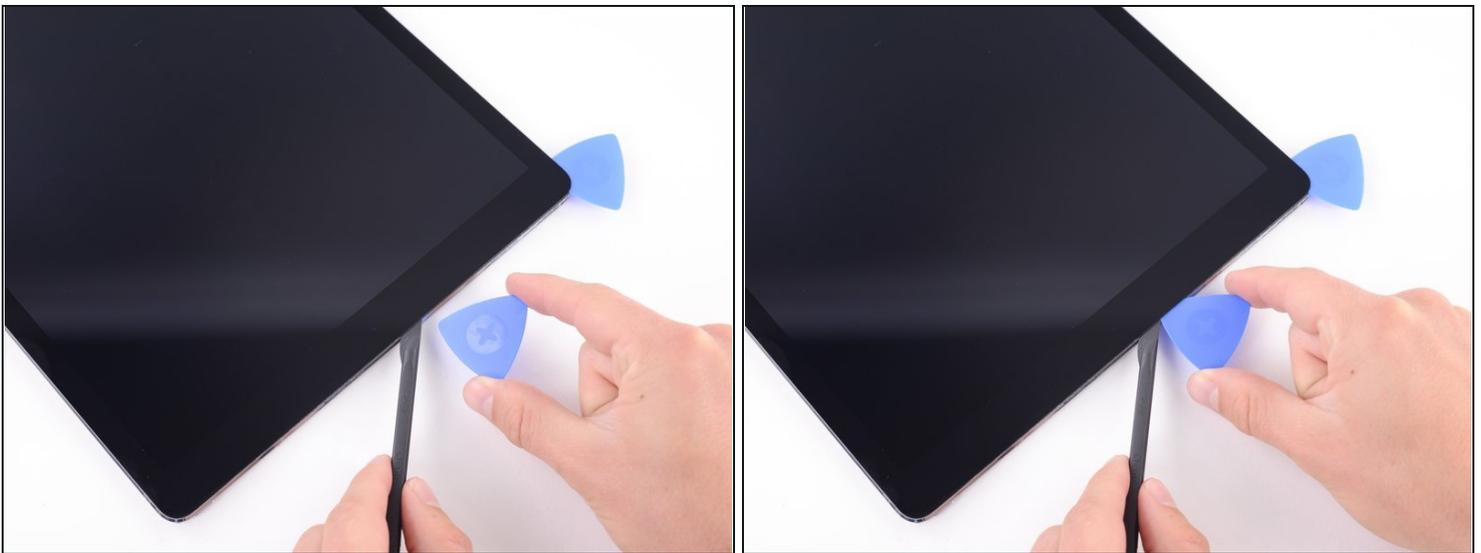
- Insert a pick in the upper left corner of the iPad to prevent the adhesive from resealing.

Step 13



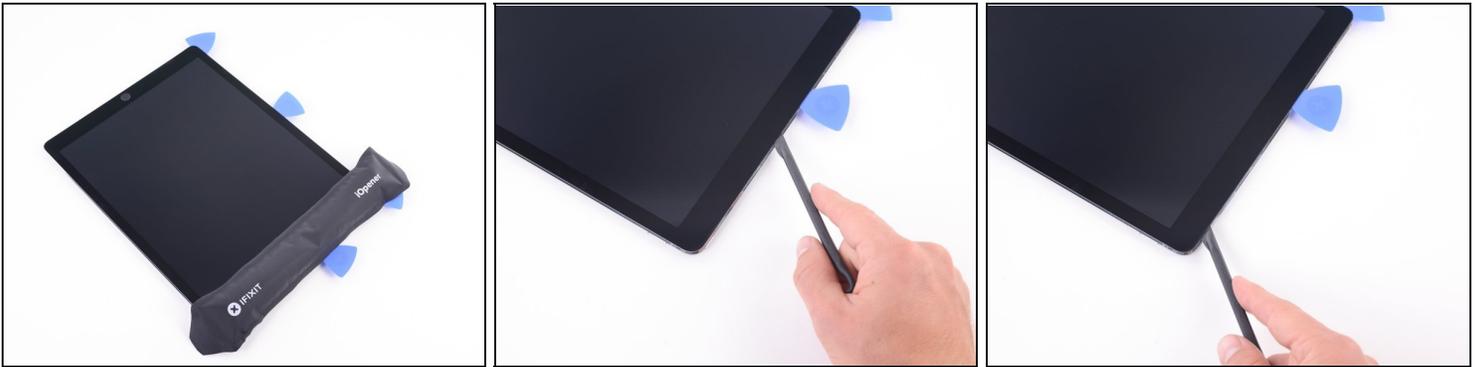
- Reheat your iOpener and lay it over the top edge of the device. Wait a couple minutes for the adhesive to soften.
- Use an opening pick to slice through the top edge of the iPad, stopping before you reach the front-facing camera.
 - ⓘ The adhesive is thicker along the top. You'll need to slice 1/2" deep—about the thickness of the top bezel.
- If the slicing becomes hard, reheat the edge and try again.

Step 14



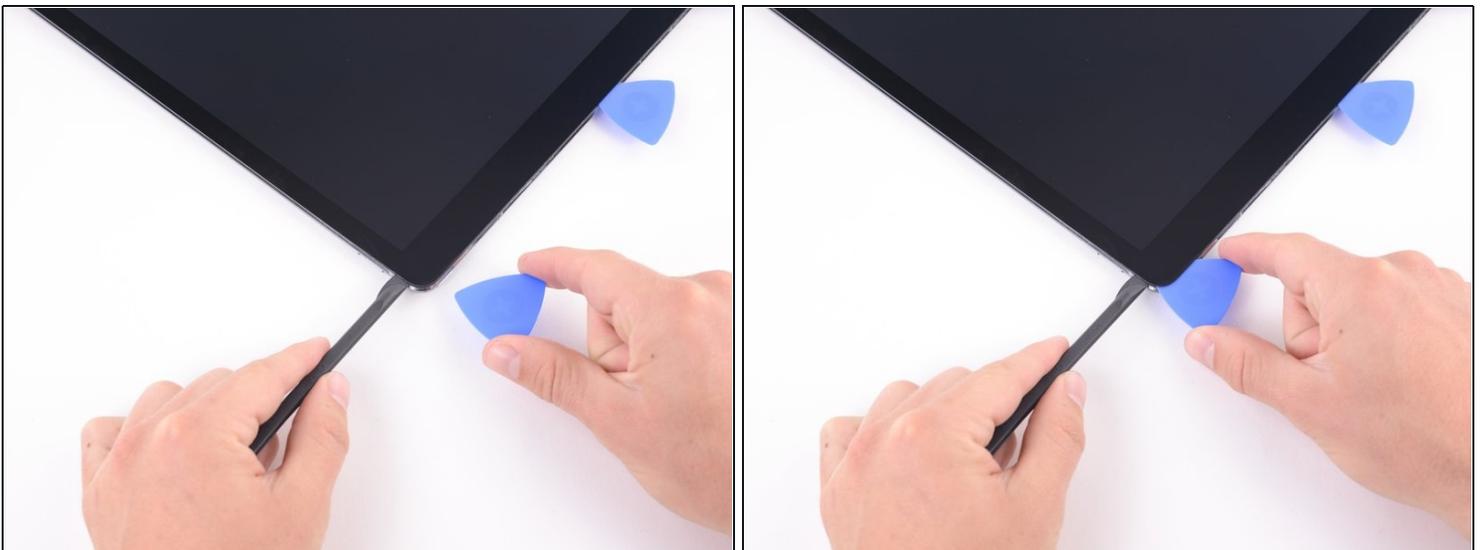
- Insert an opening pick just before the front-facing camera to keep the adhesive from resealing.

Step 15



- Reheat your iOpener and lay it over the top edge of the device. Wait a couple minutes for the adhesive to soften.
- Insert an opening pick or a halberd spudger blade just past the front-facing camera.
- Use the opening pick to slice through the adhesive in the upper right corner.
 - ⓘ You'll need to slice 1/2" deep—about the thickness of the top bezel.
- If the slicing becomes hard, reheat the edge and try again.

Step 16



- Insert an opening pick in the upper right corner to prevent the adhesive from resealing.

Step 17



- Soften the adhesive by heating the right edge of the iPad using an iOpener.
- Use an opening pick or halberd spudger to slice along the right edge of the iPad, till you reach the lower right corner.
⚠ Don't insert the pick more than 2 mm along the right edge.
- Leave an opening pick in the middle of the right edge to prevent the adhesive from resealing.

Step 18



- Leave an opening pick in the lower right corner of the iPad to prevent the adhesive from resealing.

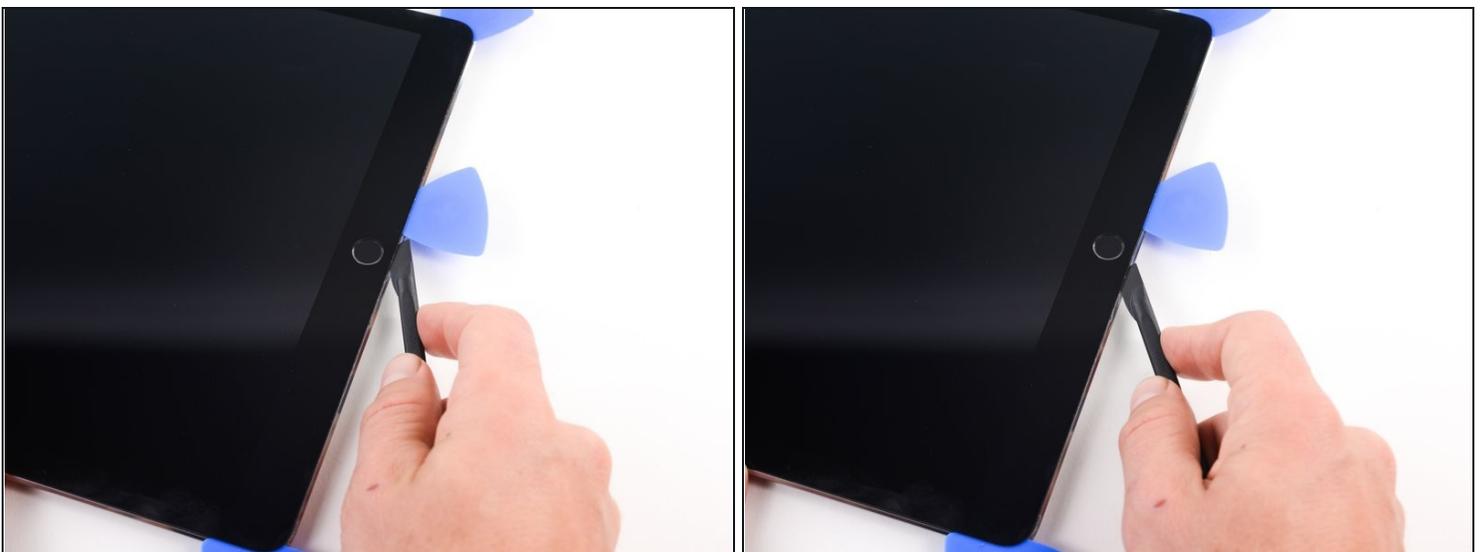
Step 19



- Use an iOpener to heat the lower edge of the iPad.
- Insert an opening pick or a halberd spudger blade 1/4" into the lower right corner of the iPad.
- Slide the opening pick along the lower edge of the iPad, stopping short about 1/2" before reaching the home button.

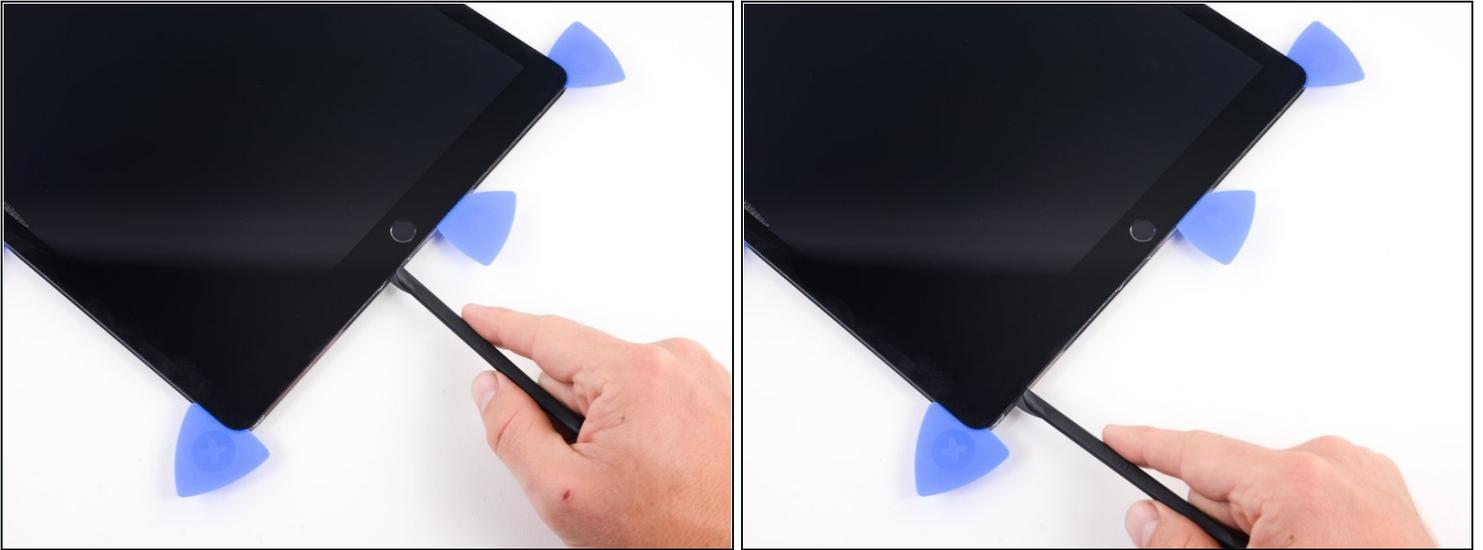
⚠ Each lower corner has a thick patch of adhesive, but there is also a [delicate flex cable](#). Don't slice deeper than 1/4" around the corner to prevent damaging the flex cable.

Step 20



- Slide the tip of an opening pick or a halberd spudger to cut the adhesive below the home button.

Step 21



- After you slice below the home button, reinsert the tip of an opening pick or a halberd spudger blade 1/4" into the lower edge.
- Slice along the lower edge until you reach the opening pick.

Step 22



- At this point, you've sliced through most of the screen adhesive. Use an opening pick to carefully slice any remaining adhesive along the edges until the screen is freed. If some parts are stubborn, heat the area with an iOpener to loosen the adhesive.

Step 23



ⓘ The display cables in this iPad are very short. Read the next two steps before you proceed.

⚠ **Do not tilt the screen about the lower edge.** The display cables don't have enough slack to allow for this.

- Lift up the upper edge of the screen and slide the entire screen towards the front-facing camera to access the iPad's internal components.

⚠ **The display cables will tear if you raise the screen more than 80 degrees.**

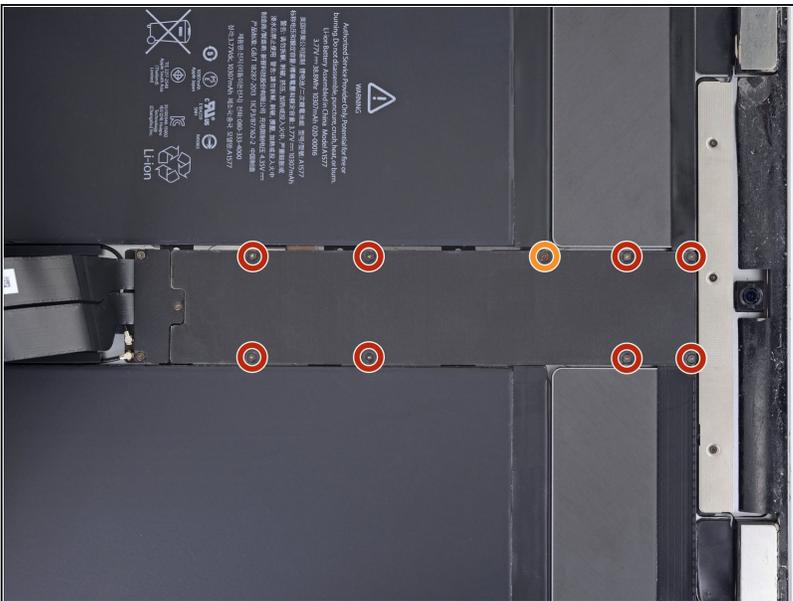
- Use masking tape to tape the lower edge of the screen to the frame to prevent the screen from slipping.

Step 24 — Prop up the screen



- ⓘ This step shows one way to support the screen using masking tape. [You can also turn the iPad sideways](#). Make sure not to strain the display cables with whatever method you choose.
- Attach a long strip of masking tape to the top edge of the screen. Fold the tape over the edge and make sure that the tape is attached securely.
 - Attach the other end of the strip to the bottom edge of the iPad frame to hold the screen at an angle. Make sure the tape attaches securely to the frame.

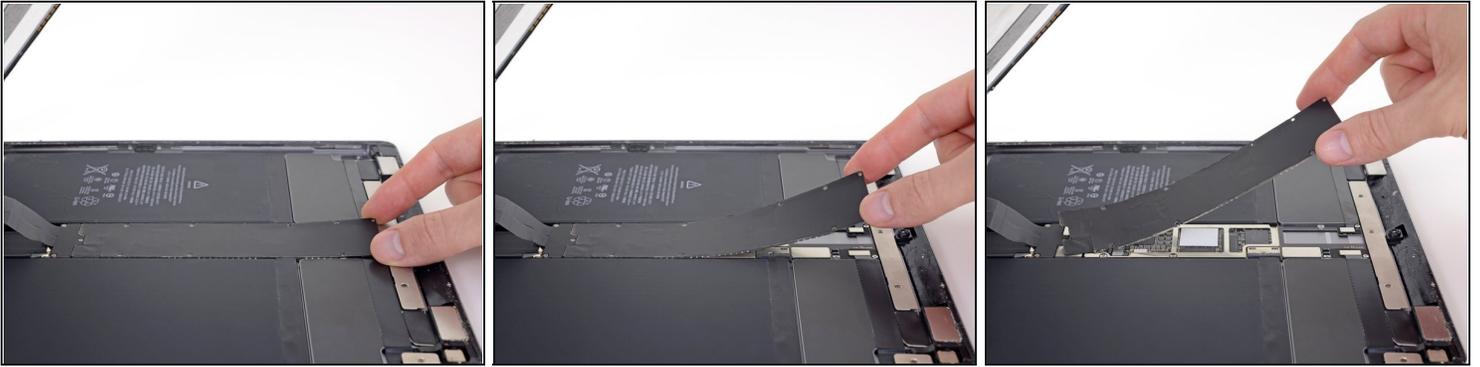
Step 25 — Disconnect the battery



⚠ It's important to disconnect the battery before you proceed further. Detaching or connecting the display cables with the battery plugged in can cause a short that will destroy touchscreen functionality.

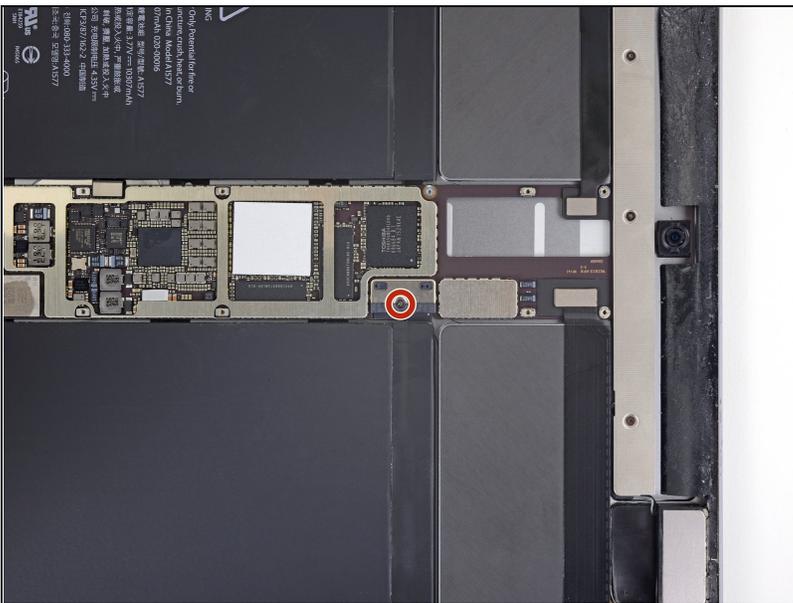
- Use a Phillips screwdriver to remove the nine screws securing the logic board EMI shield:
 - Eight 1.2 mm screws
 - One 2.4 mm screw

Step 26



- Lift the logic board EMI shield from the edge nearest the top of the iPad.
- Peel up and remove the EMI shield from the logic board.
 - ⓘ This takes a bit of force due to the many tiny clips securing the shield, and the shield may deform slightly. That's okay—try to keep the deformation to a minimum, and it will lay flat when you reinstall it and screw it down.
- Remove the logic board EMI shield.

Step 27



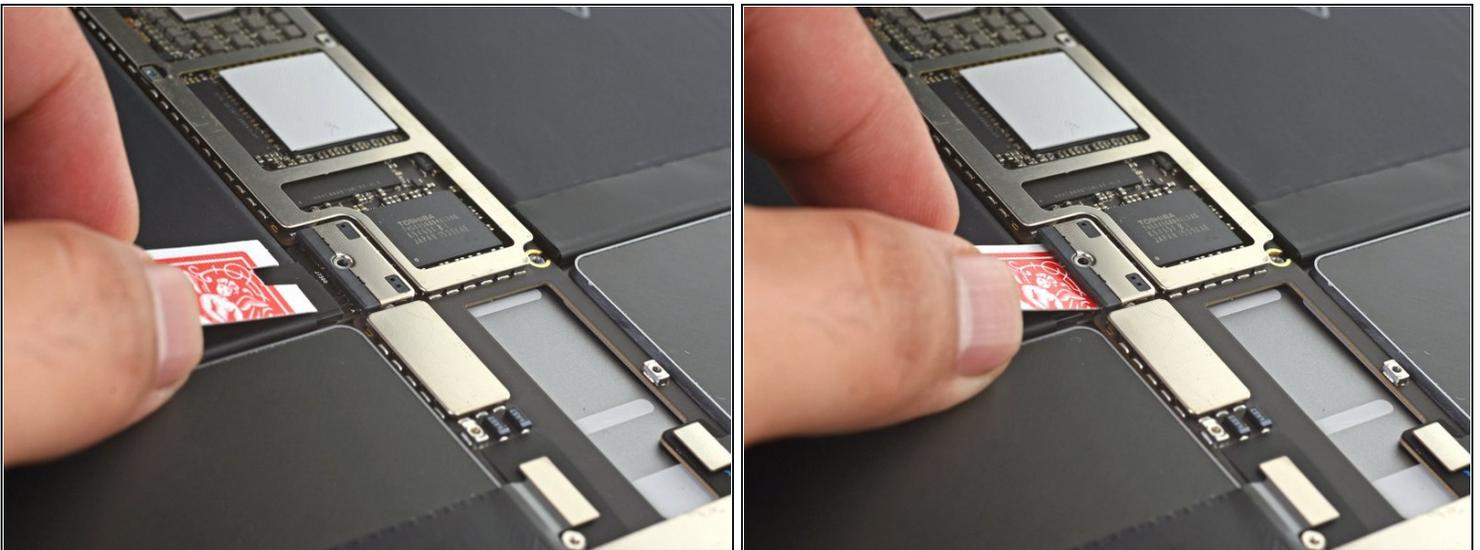
- Use a Phillips screwdriver to remove the 1.8 mm screw securing the battery connector.

Step 28 — Battery connector information



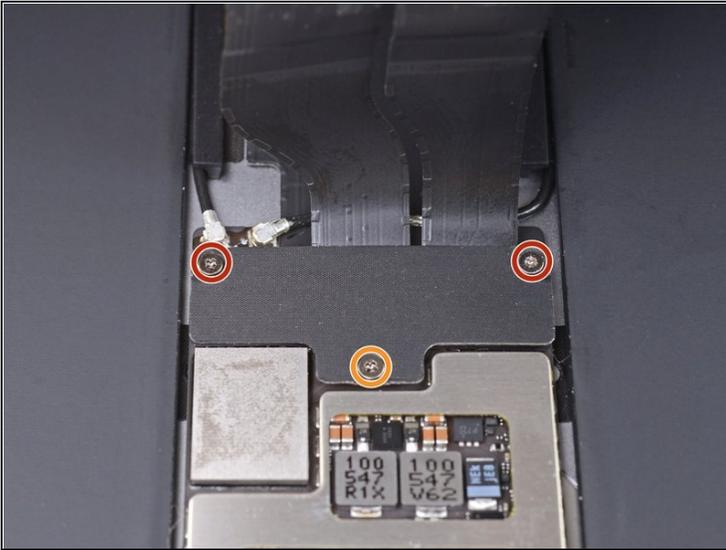
- ⓘ These photos show what the battery connector looks like underneath the logic board. Use these photos as a reference while you safely disconnect the battery.
- ⓘ Notice that the battery connector has springs on the logic board that press down against the battery contact pads. You'll need to slide something thin and flexible between the contact points to disconnect the battery.

Step 29



- [Make a battery blocker using a playing card](#) and slide it underneath the logic board connector to disconnect the battery.
- ⓘ You can also use an iFixit battery blocker. Be very careful and don't push the battery blocker underneath the connector with excessive force.
- Leave the blocker there to prevent the battery connector leads from making contact until you have completed your repairs.

Step 30 — Disconnect the screen



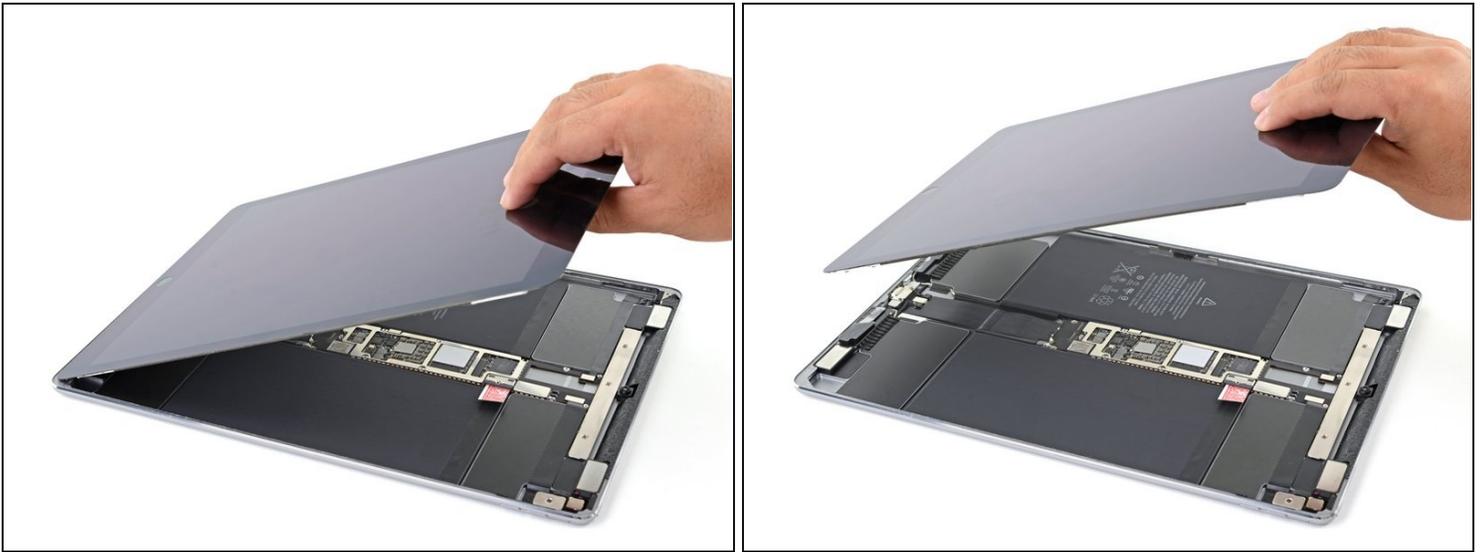
- Use a Phillips screwdriver to remove the three screws securing the display cable bracket:
 - Two 2.4 mm screws
 - One 1.2 mm screw
- Remove the display cable bracket.

Step 31



- Use the flat end of a spudger to pry up and disconnect the display and digitizer cables from their logic board sockets.
 - ① 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 on the middle. If the connector is misaligned, the pins can bend, causing permanent damage.
- ⚠ These cables are very delicate, and the connectors can damage easily if they're misaligned.** When you reattach the cables to the logic board, try to have as much slack on the cables and gently press the connectors onto their sockets.

Step 32



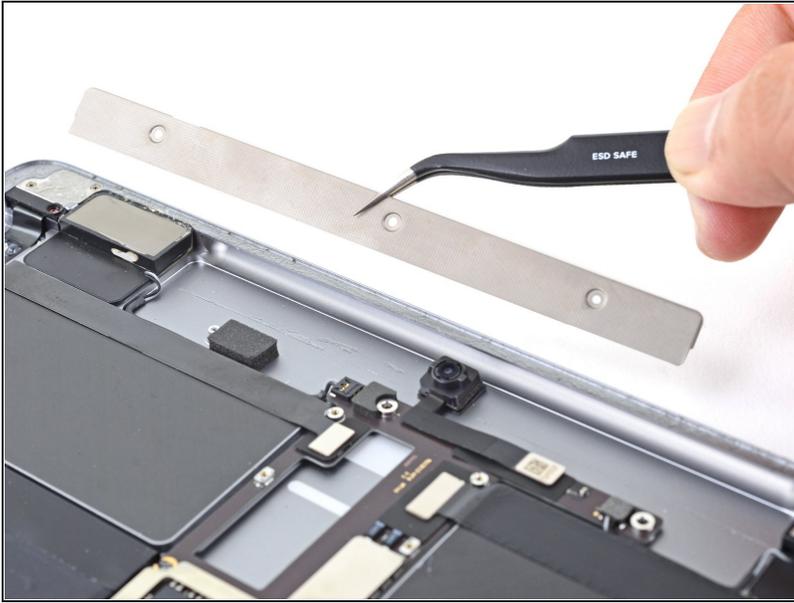
- Remove the screen.
- ☑ Be sure to remove all remaining adhesive from the iPad's enclosure.
- If your screen didn't come with pre-applied adhesives, use our [screen adhesive application guide](#) to install fresh [pre-cut adhesive strips](#) when reassembling your iPad.

Step 33 — Remove the top bracket



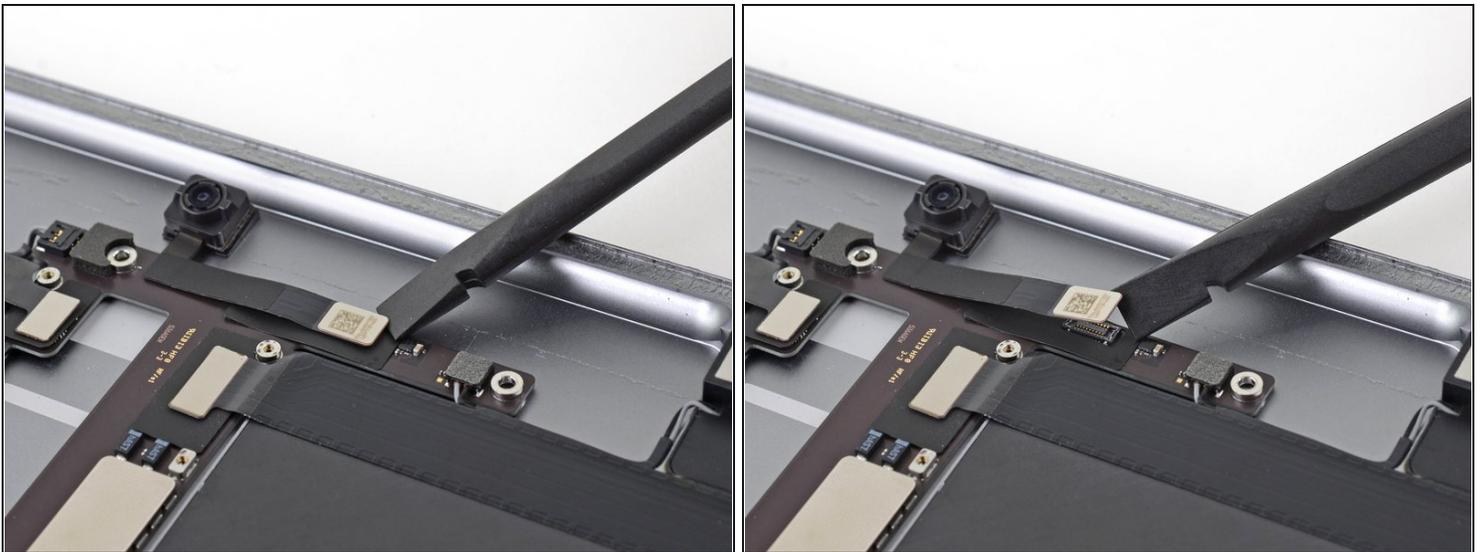
- Use a Phillips screwdriver to remove the three screws securing the top bracket:
 - One 1.2 mm screw
 - Two 2.3 mm screws

Step 34



- Remove the top bracket.

Step 35 — Remove the front facing camera



- Use the flat end of a spudger to pry up and disconnect the front facing camera connector.

Step 36



- Remove the front facing camera.

Step 37 — Disconnect the logic board connectors



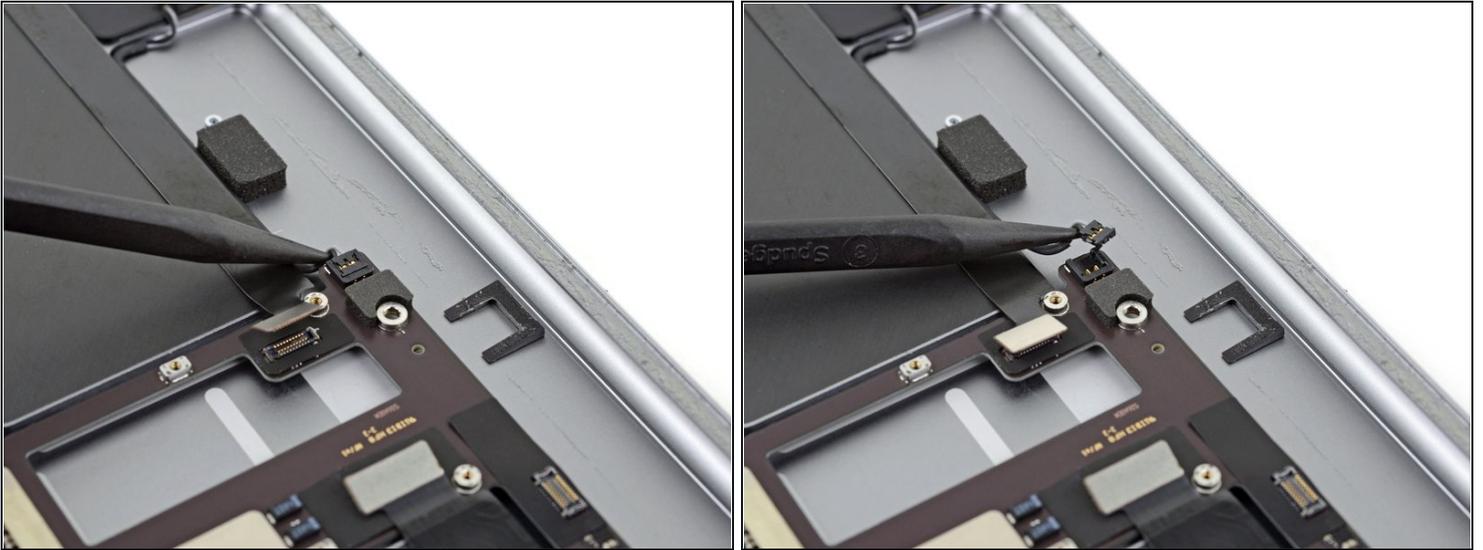
- Use a spudger to pry up and disconnect the two press connectors near the top of the logic board.

Step 38



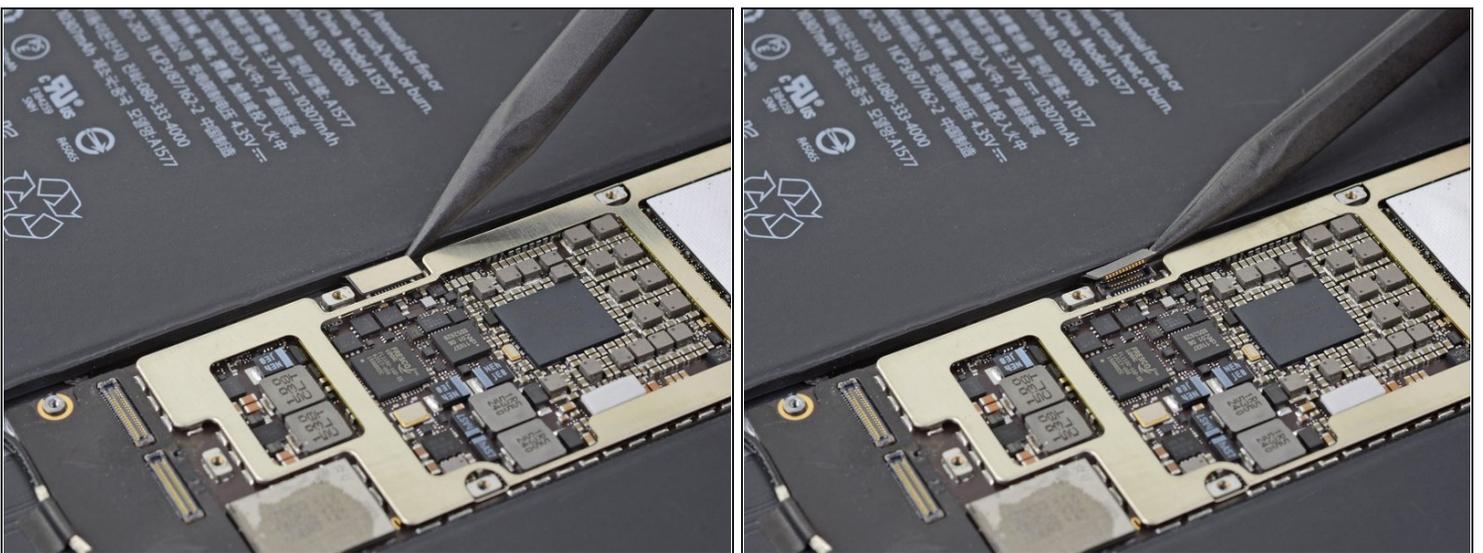
- Slide the point of a spudger under the right speaker connector wires near the top right corner of the logic board.
 - Pry straight up to disconnect the right speaker.
- To reconnect the speaker, align the connector over the socket, and press it down with your finger.

Step 39



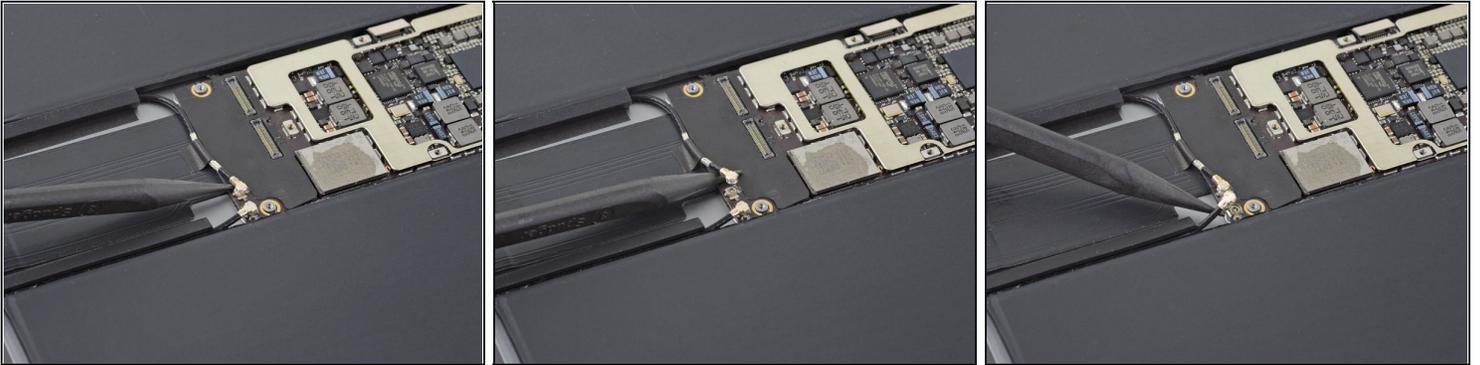
- Slide the point of a spudger under the left speaker connector wires near the top left corner of the logic board.
- Pry straight up to disconnect the left speaker.
- To reconnect the speaker, align the connector over the socket, and press it down with your finger.

Step 40



- Use the point of a spudger to pry up and disconnect the Smart Connector cable from the logic board.

Step 41 — Disconnect the antenna cables



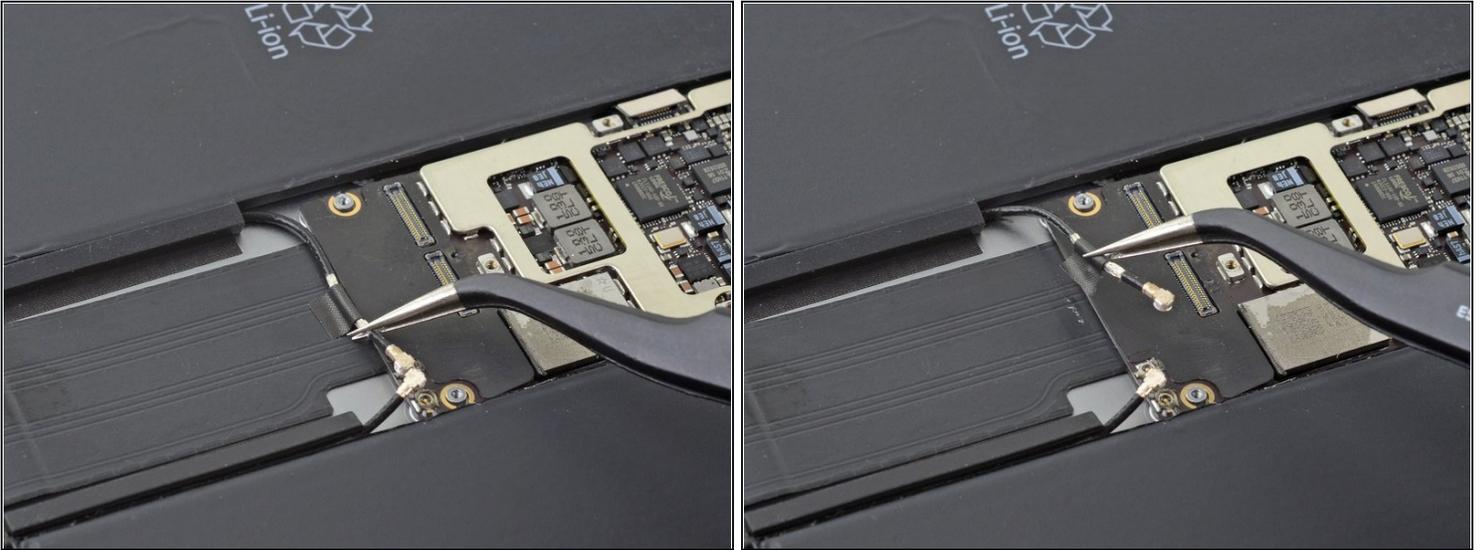
- Use the point of a spudger to pry up and disconnect the two antenna cables from the bottom right corner of the logic board.
 - ⓘ To disconnect [antenna cables](#) like these, slide the point of a spudger underneath the cable as close to the connector as possible, then pry up gently to disconnect the cable.

Step 42



- ⓘ Both antenna cables are taped down to the frame. You can loosen the adhesive with a heated iOpener or some high concentration (>90%) isopropyl alcohol.
- [Heat an iOpener](#) and apply it to the antenna cables below the logic board for a minute.

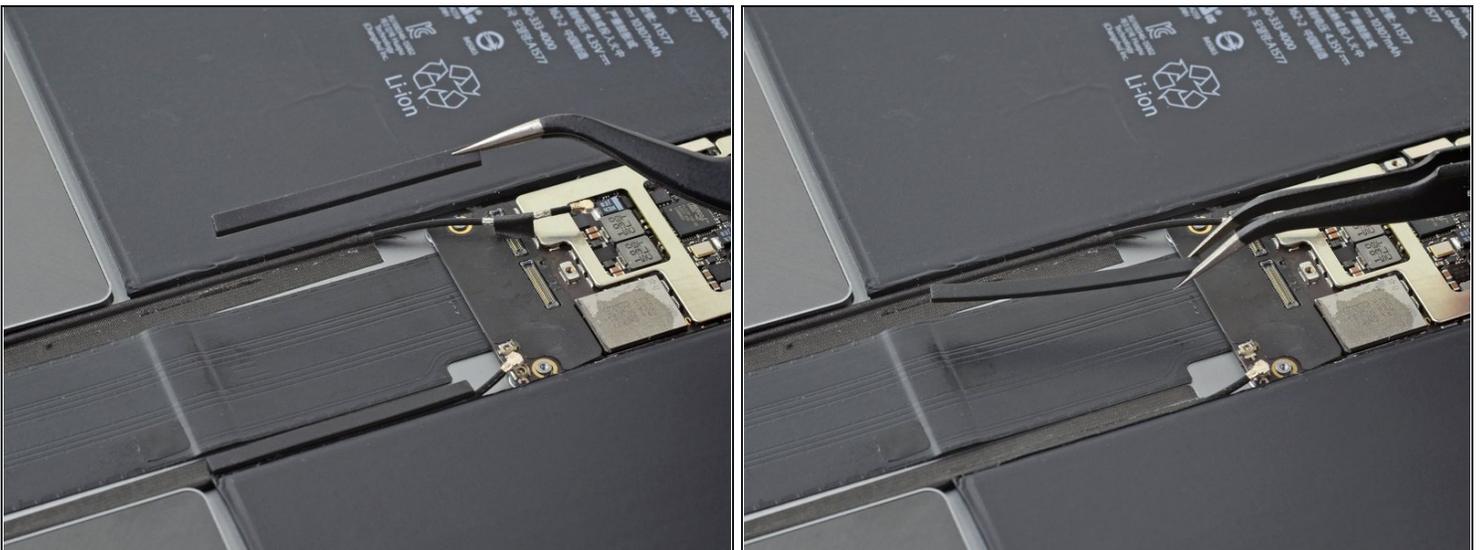
Step 43



- Use tweezers to gently lift the left antenna cable connector away from the frame.

⚠ Take care not to puncture the battery—a punctured battery may leak dangerous chemicals or cause a thermal event.

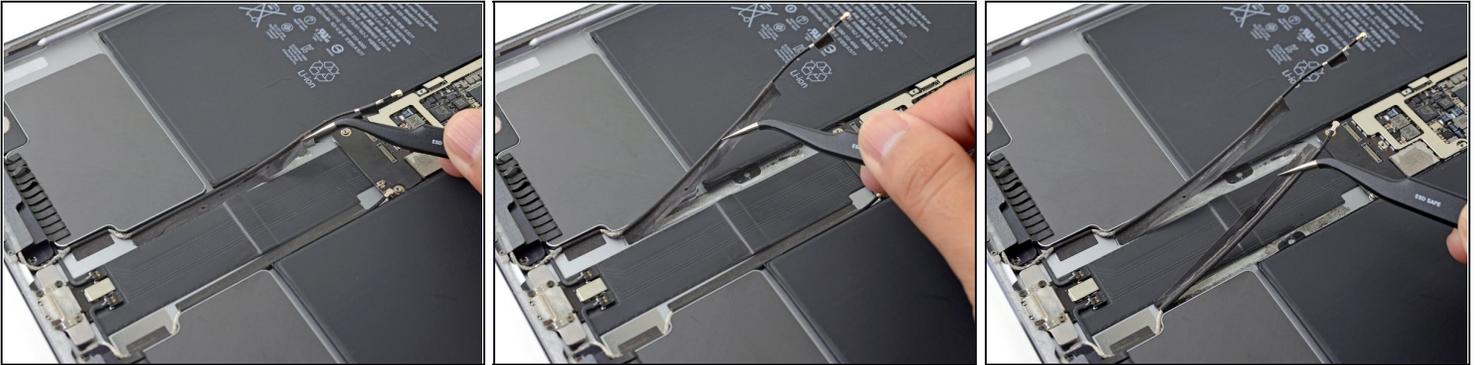
Step 44



- Use tweezers to lift and remove the two lightly adhered antenna channels from the edges of the battery.

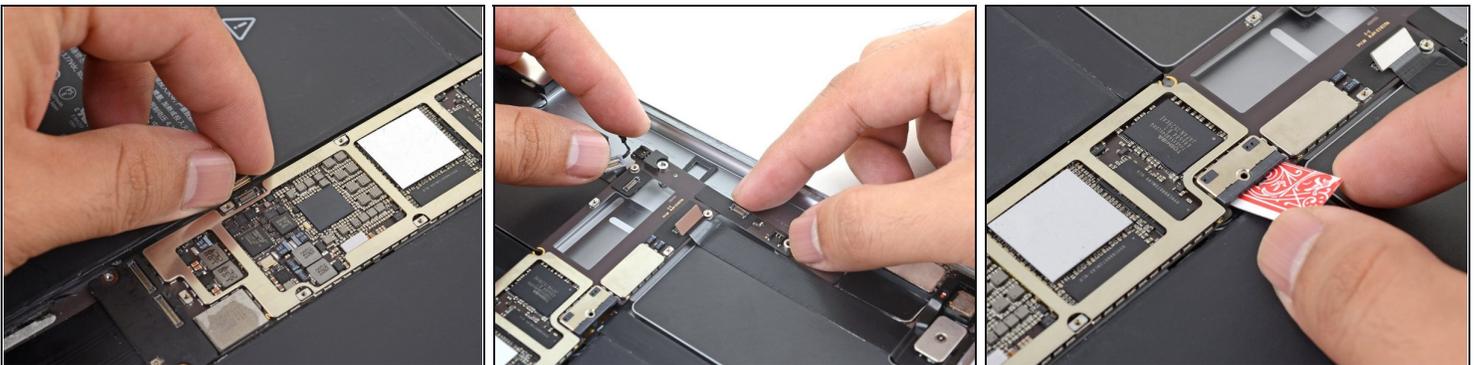
⚠ Take care not to puncture the battery.

Step 45



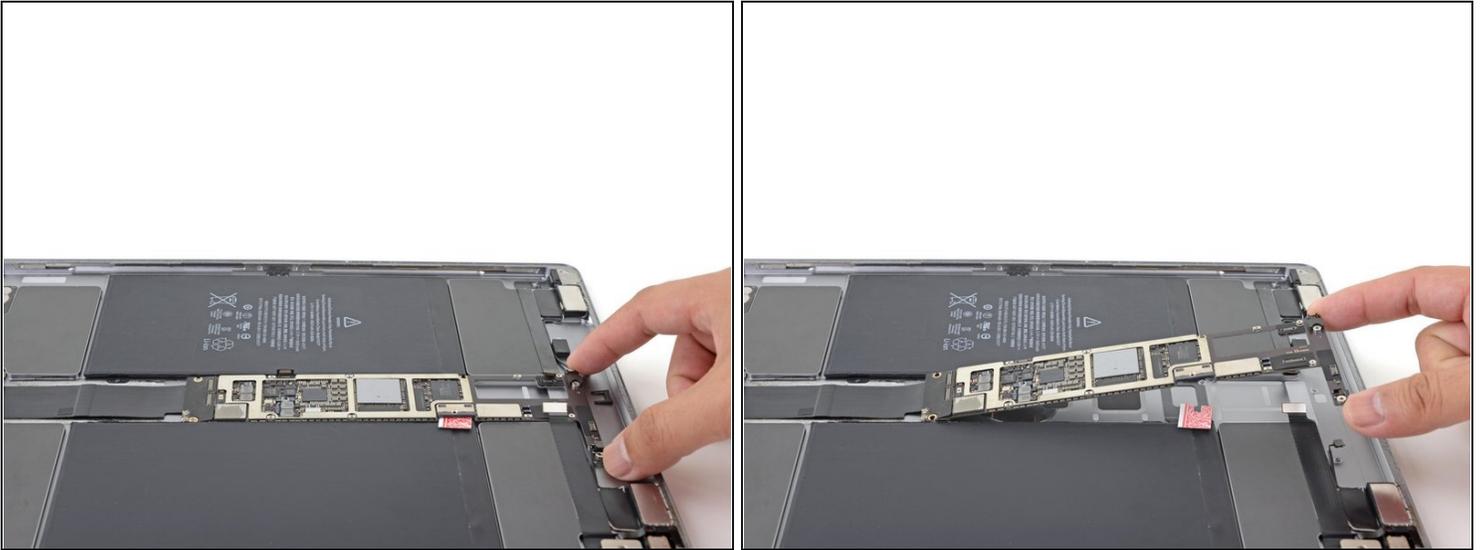
- Use your fingers or tweezers to lift and peel up the the two antenna cables from the iPad frame.
 - ⓘ Don't pull the cables forcefully. If the cables feel stuck, apply a heated iOpener or some isopropyl alcohol to help loosen the adhesive.
- Bend the antenna cables toward the bottom edge of the iPad.

Step 46 — Reassembly tips



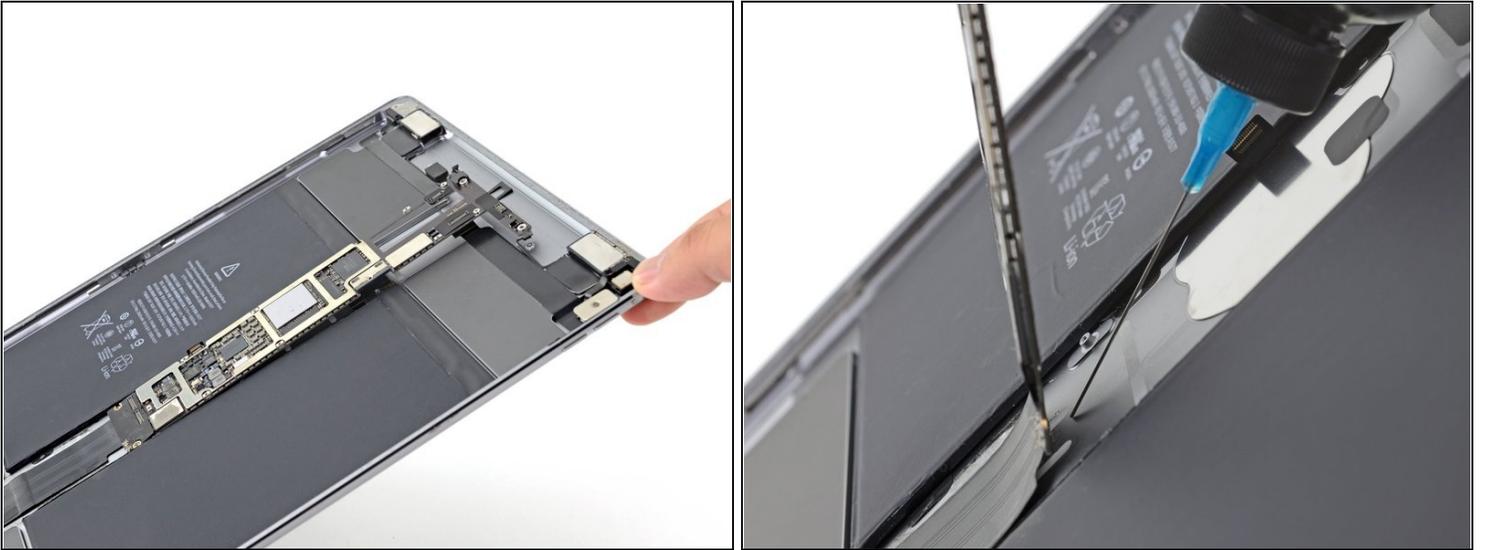
- ☑ During reassembly, follow these tips when you lower the logic board into position:
 - Be careful not to trap the Smart Connector connector underneath the logic board.
 - Be careful not to trap the two flex connectors and the two speaker connectors underneath the logic board.
 - Reinsert the battery blocker into position.

Step 47 — Loosen the logic board



- ⓘ The next four steps show how to move the logic board out of the way for battery removal. Read the steps first before you attempt it.
- Lift the top edge of the logic board slightly to free it from the top connectors.
 - ⚠ Don't try to completely remove the logic board. It's attached to a flex cable that is glued to the iPad frame.
- Remove the loose battery blocker and save it for reassembly.

Step 48



- Tilt the iPad to a 45° angle.
- Apply a few drops of high concentration (>90%) isopropyl alcohol underneath the logic board flex cable.
 - ⓘ You can also use iFixit adhesive remover instead. Be sure to [follow all safety precautions](#) when you use the adhesive remover.
- Hold the iPad in the tilted position for a minute to allow the alcohol to loosen the adhesive.

Step 49



- Lift the logic board slightly and swing it over its flex cable.

⚠ Do not force this action. If there isn't enough slack, apply more isopropyl alcohol underneath the flex cable to loosen the adhesive.

- ☑ During reassembly, apply some Tesa tape or double-sided tape to the flex cable to secure it to the iPad frame.

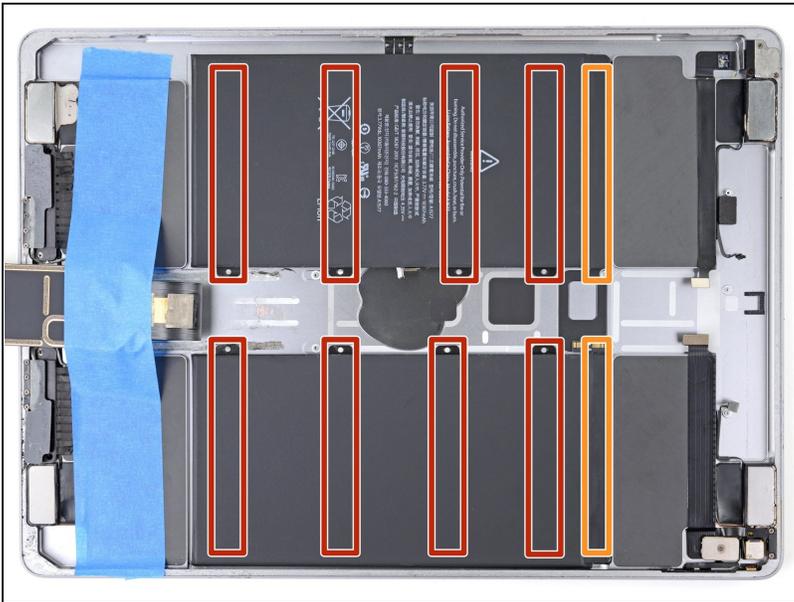
Step 50



- Once you swing the logic board completely over its flex cable, use a piece of tape to secure the logic board out of the way of the battery.

⚠ Be careful not to fold or crease the flex cable.

Step 51 — Battery adhesive locations



- ⓘ Several adhesive strips secure the iPad battery:
 - Eight stretch-release adhesive strips
 - Two regular adhesive strips
- ★ To attach a replacement battery, use some double-sided tape such as [Tesa tape](#), or use some [stretch release adhesive strips](#).

Step 52 — Remove the battery adhesives



- Use tweezers or your fingers to grasp the black pull-tab on one of the adhesive strips.
- Pull the strip out slowly and steadily at a low angle. Give it plenty of time to stretch and un-stick from under the battery.
- If the adhesive strip breaks off, try to retrieve it using your fingers or blunt tweezers, and continue pulling—but do not pry under the battery.

Step 53



- Repeat the process on all eight stretch-release adhesive strips.

Step 54 — Loosen the broken adhesive strips



- ⓘ This step shows some ways of loosening broken adhesive strips. *If you were able to remove all eight stretch-release adhesive strips, skip this step.*
- Tilt the iPad and apply a few drops of high concentration (>90%) isopropyl alcohol to the broken strip. Wait for a minute to let the alcohol penetrate the adhesive.
 - Slowly slide an opening card under the battery to loosen the adhesive.
⚠ Be careful not to puncture or bend the battery. If it feels difficult, apply more isopropyl alcohol and try again.
 - Alternatively, you can [use dental floss](#) to slice through the adhesive. Wrap the floss around a bit driver handle or your fingers and thread it back and forth under the battery.

Step 55 — Loosen the top of the battery



- ⓘ The top of the battery cells are attached to the iPad frame with adhesive.
- Tilt the iPad up and apply a few drops of isopropyl alcohol to the top right edge of the battery.
- Keep the iPad tilted for a minute to let the alcohol penetrate the adhesive.

Step 56



- Insert the flat edge of an opening pick into the crevice above the top right edge of the battery.
- Slowly press the pick under the battery to loosen the adhesive.
- Slide the pick along the top right edge of the battery to loosen the adhesive.

Step 57



① Repeat the procedure for the top left edge of the battery:

- Tilt the iPad up and apply a few drops of isopropyl alcohol to the top left edge of the battery.
- Keep the iPad tilted for a minute to let the alcohol penetrate the adhesive.
- Insert the flat edge of an opening pick into the crevice above the top left edge of the battery.
- Slowly press the pick under the battery to loosen the adhesive.
- Slide the pick along the top left edge of the battery to loosen the adhesive.

Step 58 — Remove the battery



- Lift the battery and remove it from the iPad.

⚠ Don't reuse the battery after it has been removed, as doing so is a potential safety hazard. Replace it with a new battery.

Step 59 — Remove the adhesive residue

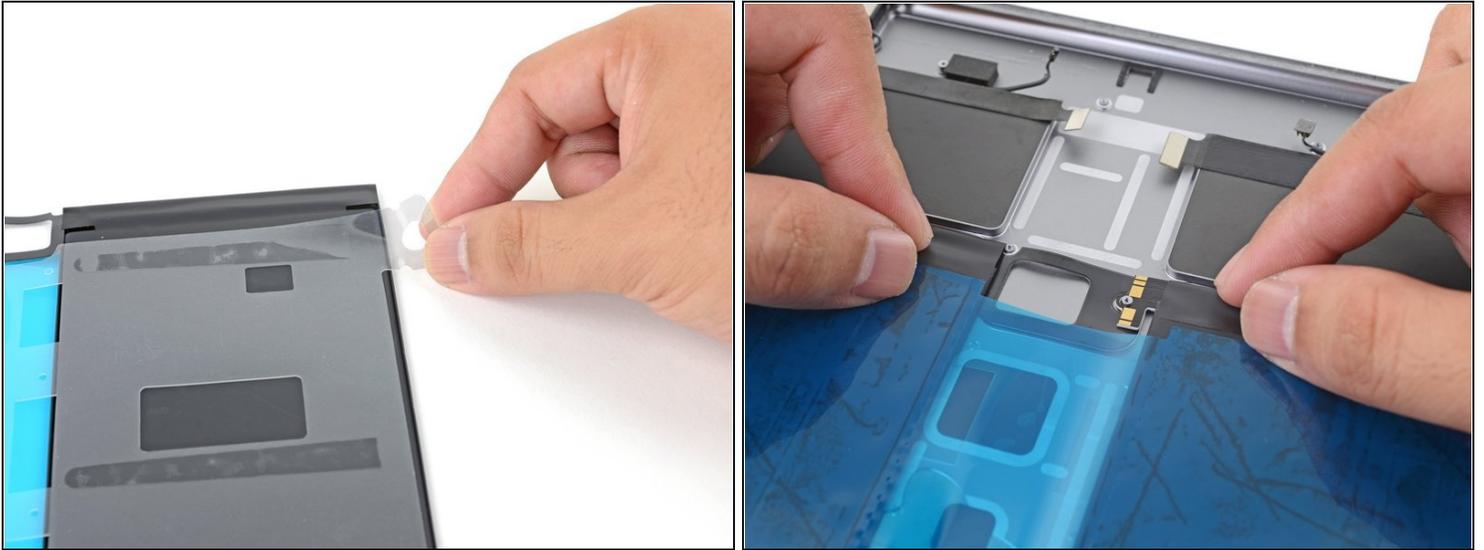


✦ Before you install a new battery:

- Peel and remove any remaining adhesive strips.
- Remove all adhesive residue from the iPad frame. Use isopropyl alcohol and a spudger to scrape off any adhesive chunks. Wipe away the adhesive residue with a lint-free cloth.
- If there's any alcohol solution remaining in the iPad, carefully wipe it off or allow it to air dry.

⚠ Be sure that the iPad frame surface is completely clean and free of debris. An uneven surface can press into the replacement battery, resulting in premature battery failure.

Step 60 — Installation tip



- When you're ready to install the replacement battery:
- Peel off the clear plastic liners on your replacement battery to expose the adhesive strips.
 - Align the battery connector with the iPad's battery post and lay the battery in the iPad.
 - Press down on the battery for a minute to stick the battery in place.

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

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

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

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