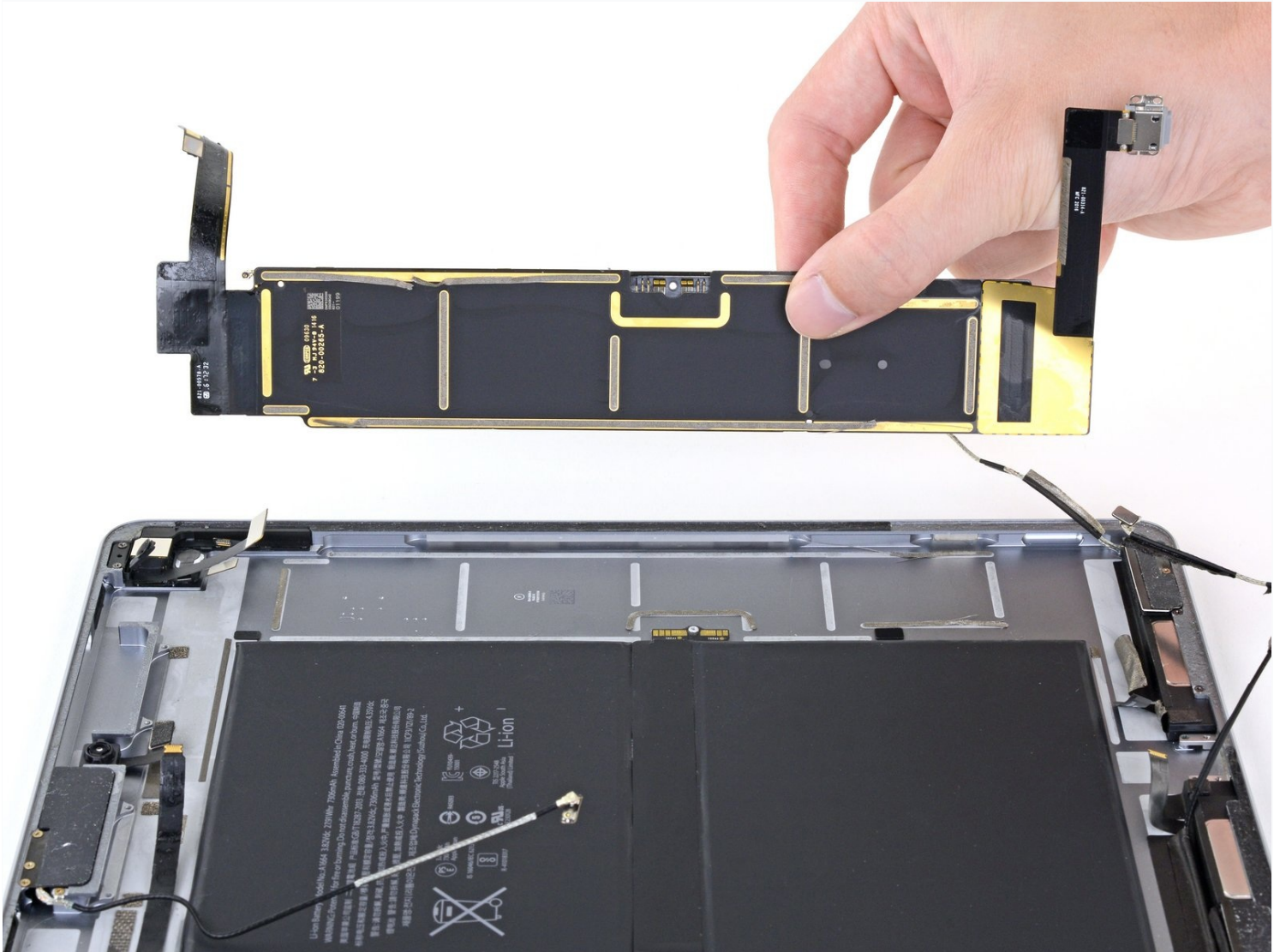




iPad Pro 9.7" Logic Board Replacement

Follow this guide to remove or replace the...

Written By: Kyle Smith



INTRODUCTION

Follow this guide to remove or replace the logic board on an iPad Pro 9.7".

This guide is written with a cellular model iPad Pro. If your iPad is not the cellular enabled model, skip the first step.

For your safety, discharge the 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](#).

Some photos in this guide are from a different model and may contain slight visual discrepancies, but they won't affect the guide procedure.

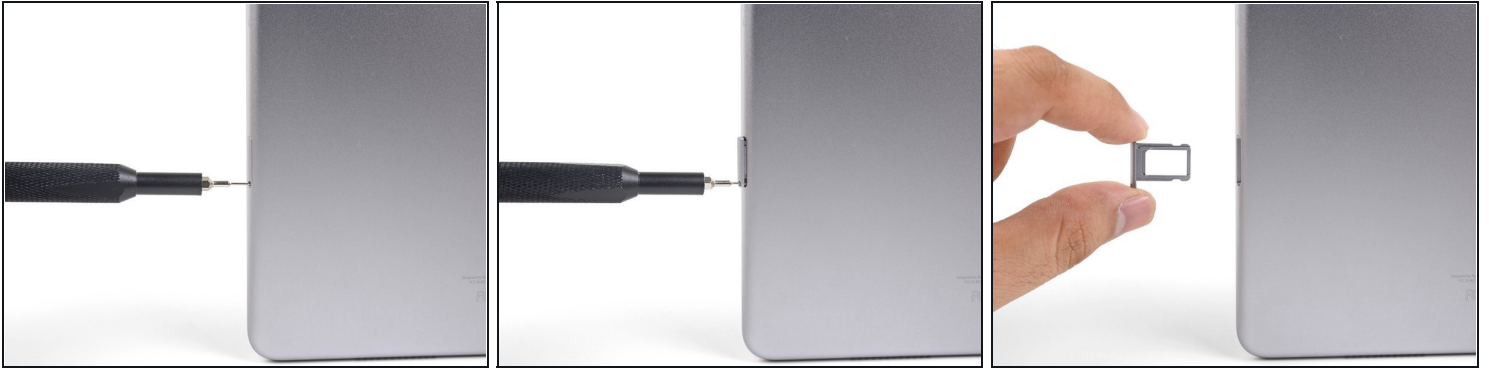
TOOLS:

[Anti-Clamp](#) (1)
[iOpener](#) (1)
[Suction Handle](#) (1)
[iFixit Opening Picks \(Set of 6\)](#) (1)
[Slip Joint Pliers](#) (1)
[Phillips #00 Screwdriver](#) (1)
[Battery Blocker](#) (1)
[Tweezers](#) (1)
[Spudger](#) (1)
[iFixit Opening Tool](#) (1)
[Isopropyl Alcohol \(90% or Greater\)](#) (1)
[SIM Card Eject Tool](#) (1)
[Deck of Cards](#) (1)

PARTS:

[Tesa 61395 Tape](#) (1)

Step 1 — SIM Card Tray



- Insert a SIM card eject tool, bit, or a paperclip into the small hole in the SIM card tray, located near the bottom edge of the iPad.
- Press firmly to eject the tray.
- Remove the SIM tray.

Step 2 — iPad Pro 9.7" Opening Procedure



- If your display glass is cracked, keep further breakage contained and prevent bodily harm during your repair by taping the glass.
- Lay overlapping strips of clear packing tape over the iPad's display until the whole face is covered.
 - ⓘ This will keep glass shards contained and provide structural integrity when prying and lifting the display.
- 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 3



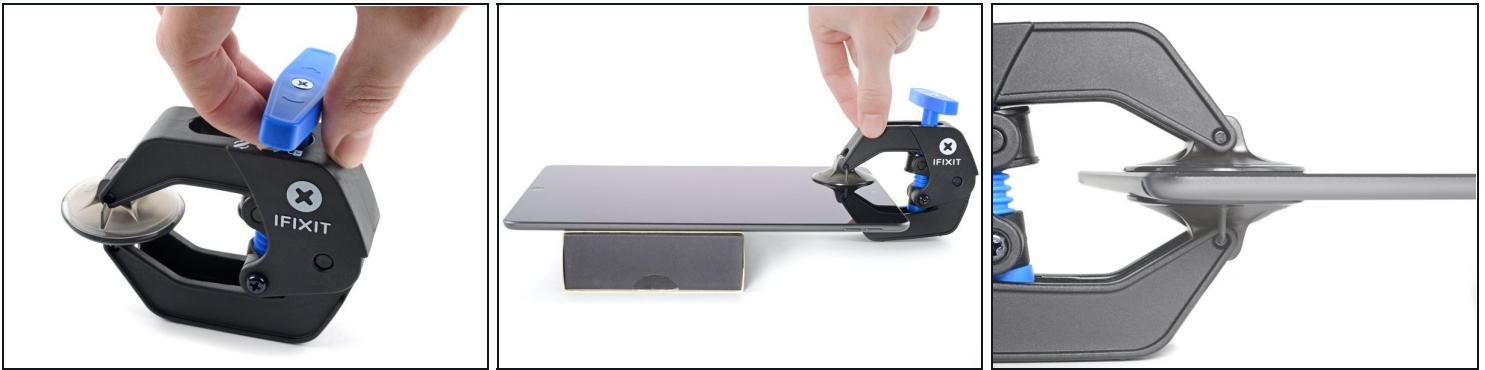
- ① The following steps involve using an iOpener to soften the adhesive holding the front panel assembly in place. When using the iOpener, be sure to heat it in the microwave for no more than 30 seconds.
- Handling it by the tabs on either end, place a heated iOpener over the top edge of the iPad.
- Let the iOpener sit on the iPad for two minutes to soften the adhesive securing the front panel to the rest of the iPad.

Step 4



- ⓘ While the iPad looks uniform from the outside, there are delicate components under certain portions of the front glass. To avoid damage, only heat and pry in the areas described in each step.
- As you follow the directions, take special care to avoid prying in the following areas:
 - Home Button
 - Front Facing Camera
 - Main Camera

Step 5 — Anti-Clamp instructions



- ① The next two 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 two steps for an alternate method.**
- ① For complete instructions on how to use the Anti-Clamp, [check out this guide](#).
- Elevate the iPad enough for the Anti-Clamp's arms to rest above and below the screen.
- Pull the blue handle towards the hinge to disengage opening mode.
- Position the suction cups near the top edge of the iPad—one on the front, and one on the back.
- Push down on the cups to apply suction to the desired area.
- ① If you find that the surface of your device is too slippery for the Anti-Clamp to hold onto, you can use packing tape to create a grippier surface.

Step 6



- Push the blue handle away from the hinge to engage opening mode.
 - Turn the handle clockwise until you see the cups start to stretch.
 - ⓘ Make sure the suction cups remain aligned to each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.
 - Wait one minute to give the adhesive a chance to release and present an opening gap.
 - 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



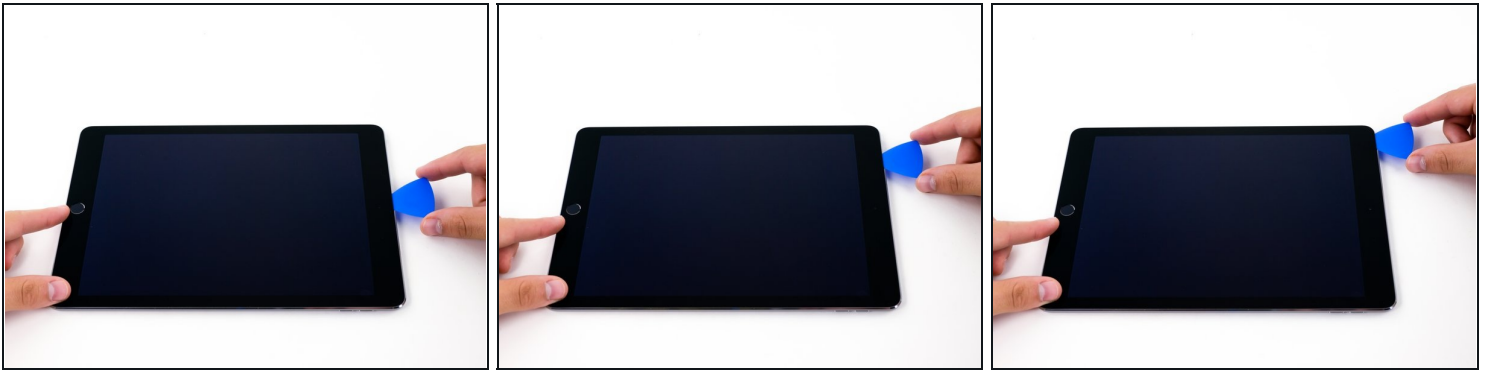
- Place a suction cup over the iPad's front-facing camera and press down to create a seal.
 - ① To get the most leverage, place the suction cup as close to the edge as possible without going past the edge of the display.

Step 8



- Firmly pull up on the suction cup to create a small gap between the front panel and the rear case.
 - ⚠ Do not pull too hard or you may shatter the glass.
- Once you've opened a sufficient gap, insert an opening pick into the gap to prevent the adhesive from resealing.

Step 9

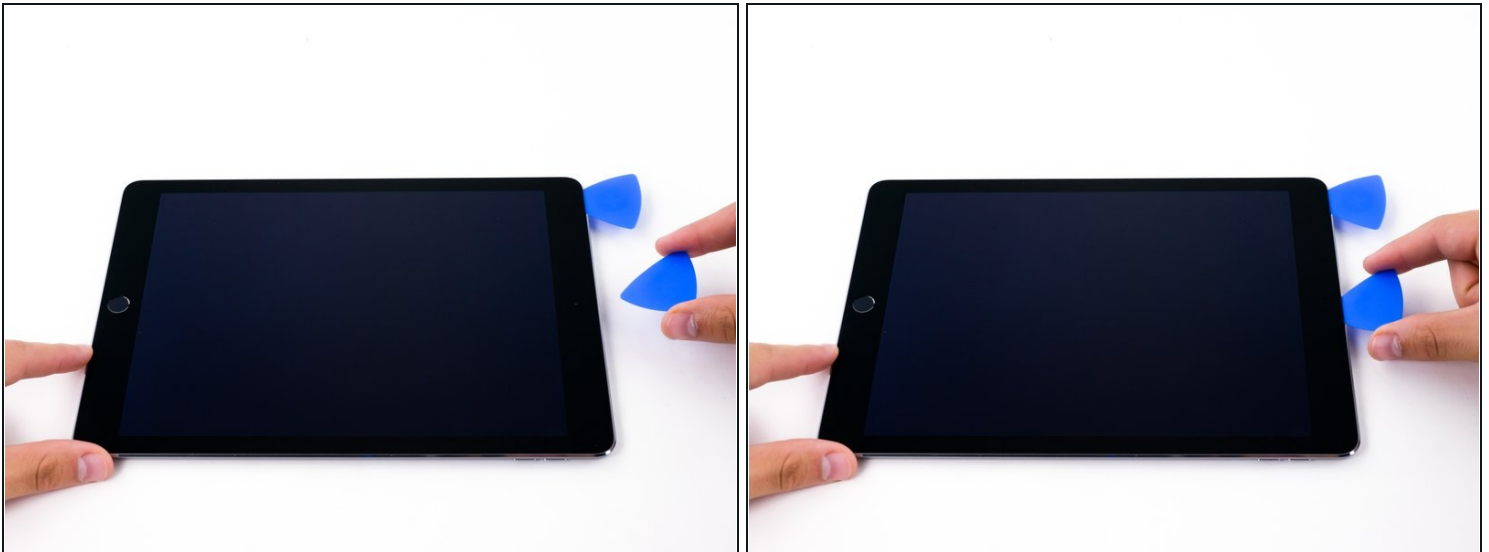


- Slide the pick along the edge of the display, towards the headphone jack.
- If there is still a considerable amount of resistance when sliding the opening pick, repeat the iOpener heating procedure and apply additional heat.

⚠ Don't insert the pick past the bezel into the display area, or you will damage it.

- ① A good rule of thumb is to never insert the opening pick more than a quarter inch into the iPad.

Step 10



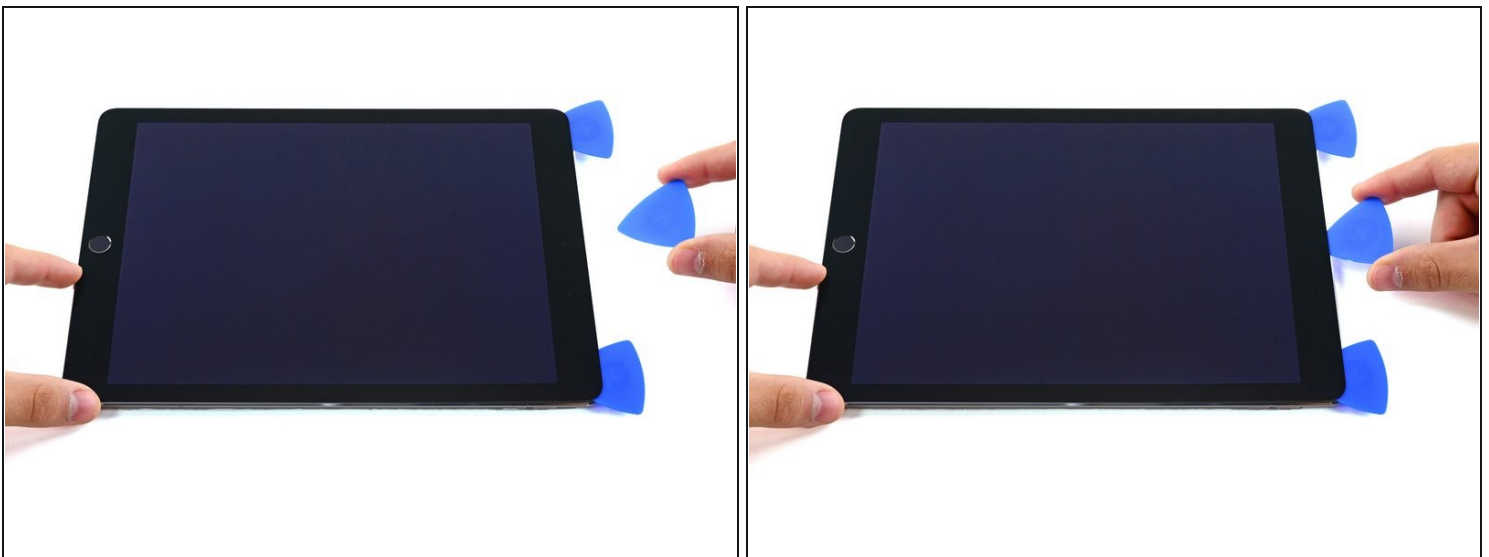
- Insert a second opening pick by the front-facing camera.

Step 11



- Slide the second pick along the top edge of the iPad, towards the Sleep/Wake Button.

Step 12



- Insert a third pick by the front-facing camera.

Step 13



- Bring the right opening pick down and around the top right corner of the iPad.

Step 14



- Bring the left opening pick around the top left corner of the tablet.

Step 15



- Reheat the iOpener and lay it over the right edge of the display to loosen the adhesive underneath.

Step 16



- Slide the right opening pick roughly halfway down the display.

Step 17



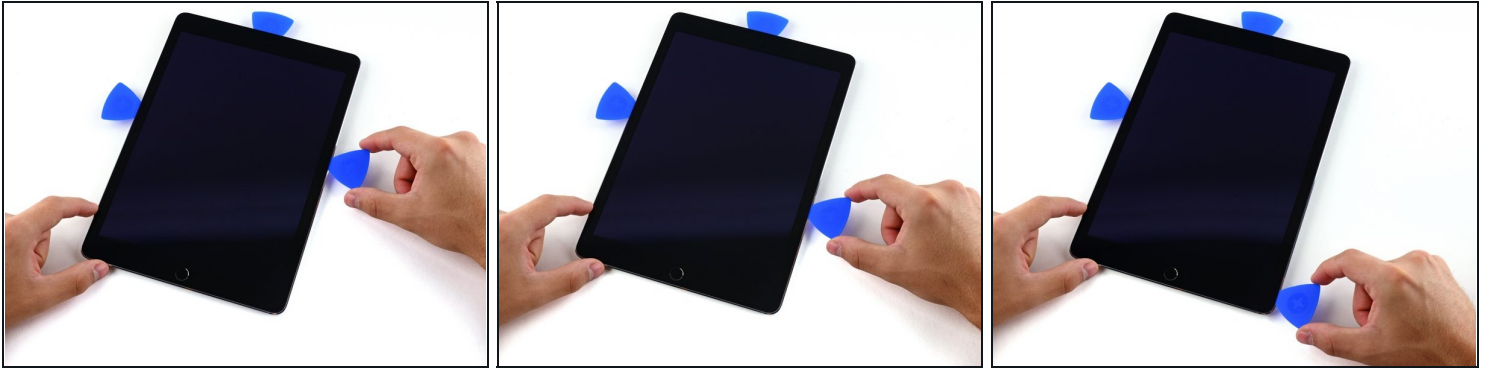
- Reheat the iOpener and apply heat to the left side of the iPad.

Step 18



- Slide the left-hand opening pick about halfway down the edge of the display.

Step 19



- Slide the opposite opening pick down to the bottom right corner of the iPad.
- ⓘ If necessary, reheat the adhesive on the right edge to loosen the display assembly.

Step 20



- Slide the left-hand opening pick down the edge of the display until you reach the corner.

Step 21



- Use the iOpener to apply heat to the bottom edge of the iPad.

Step 22



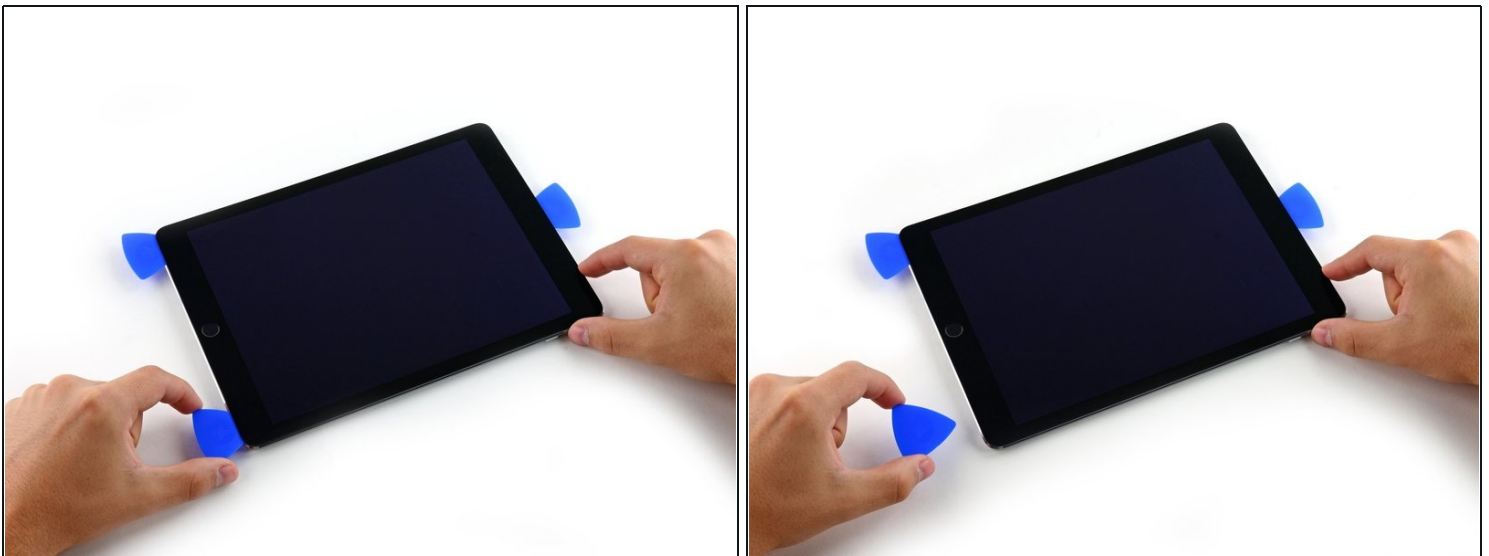
- Bring the right-hand opening pick around the bottom corner of the iPad.

Step 23



- Repeat for the left-hand pick.
- ① Reheat and reapply the iOpener as needed.

Step 24



- Remove the right-hand opening pick at the bottom of the iPad.

Step 25



- Slide the left-hand opening pick along the bottom edge of the display, then remove it from the bottom right corner of the iPad.

⚠ Be very careful to not insert the pick more than a quarter inch into the display to avoid damaging the Home Button and display cables underneath.

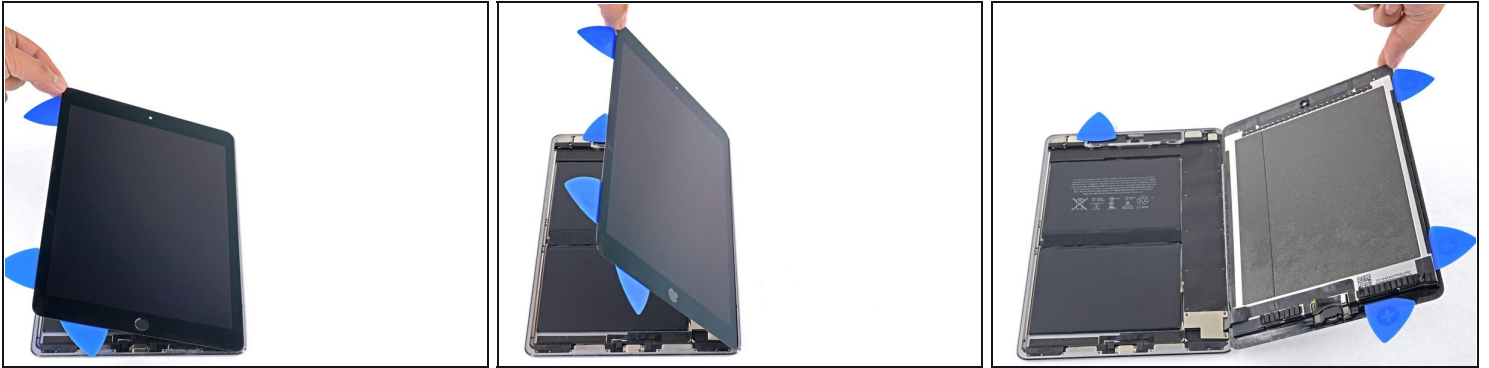
Step 26 — Slice through the remaining adhesive



- Use picks to ensure most of the adhesive has been cut through on the top, left, and bottom sides.
- Twist the top and bottom picks to separate the display assembly from the rear case.

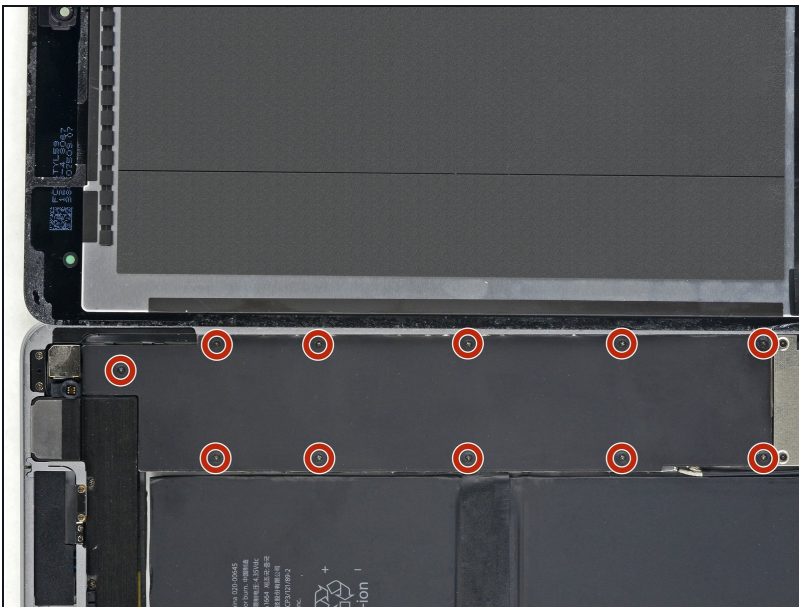
⚠ Do not attempt to remove the display—it is still attached to the rear case.

Step 27



- Swing the display assembly towards the right of the case, using the right edge as a hinge.
 - As you move the display assembly, make sure that the display ribbon cable is not being stressed.
- Continue swinging the display assembly until it lays flat next to the rear case.

Step 28 — Disconnect the battery



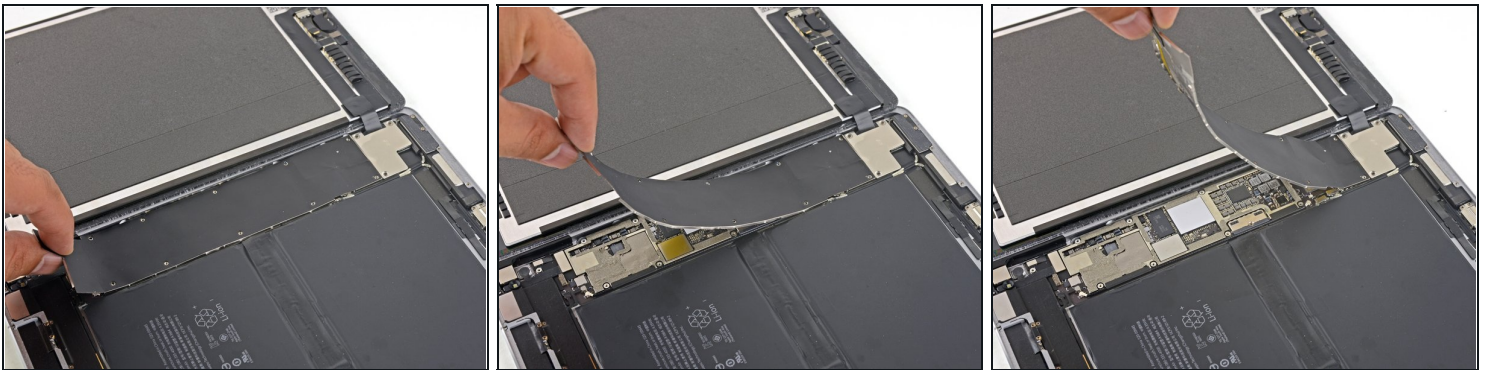
- Use a Phillips screwdriver to remove the eleven 1.3 mm screws securing the EMI shield.

Step 29



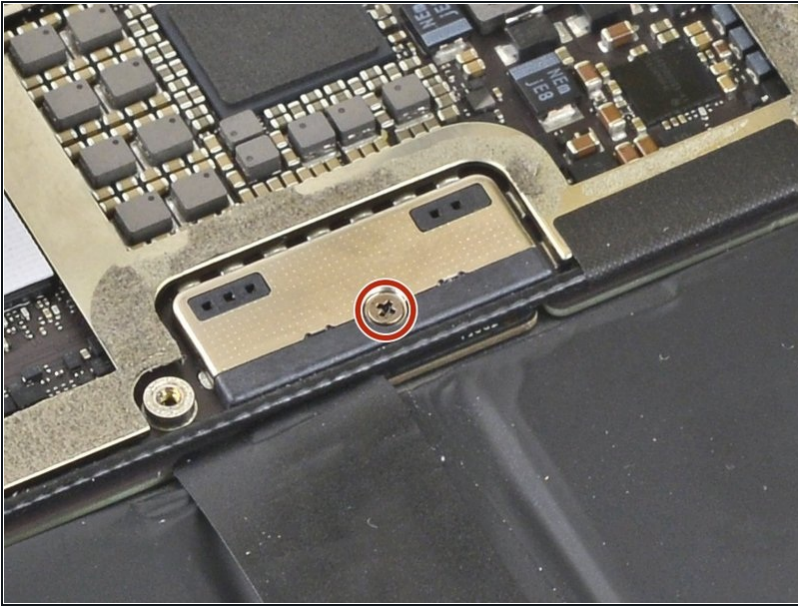
- Apply a [heated iOpener](#) to the EMI shield on the logic board for one minute.

Step 30



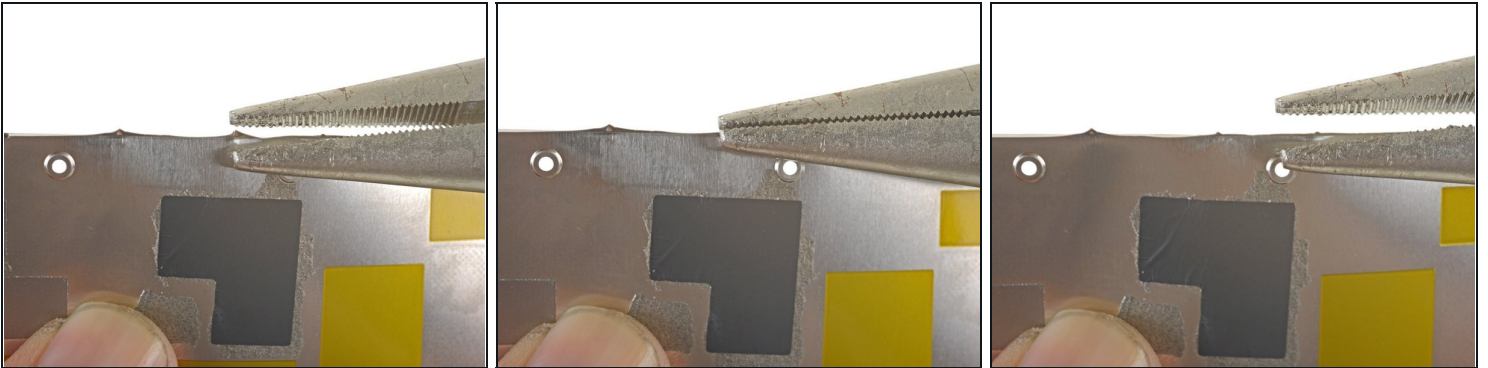
- Lift the logic board EMI shield, starting at the edge nearest the top of the iPad.
- Slowly peel the EMI shield up from the logic board.
 - ⓘ This takes a bit of force due to the many tiny clips securing the shield, and the shield may deform slightly. That's okay—try to keep the deformation to a minimum,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

Step 31



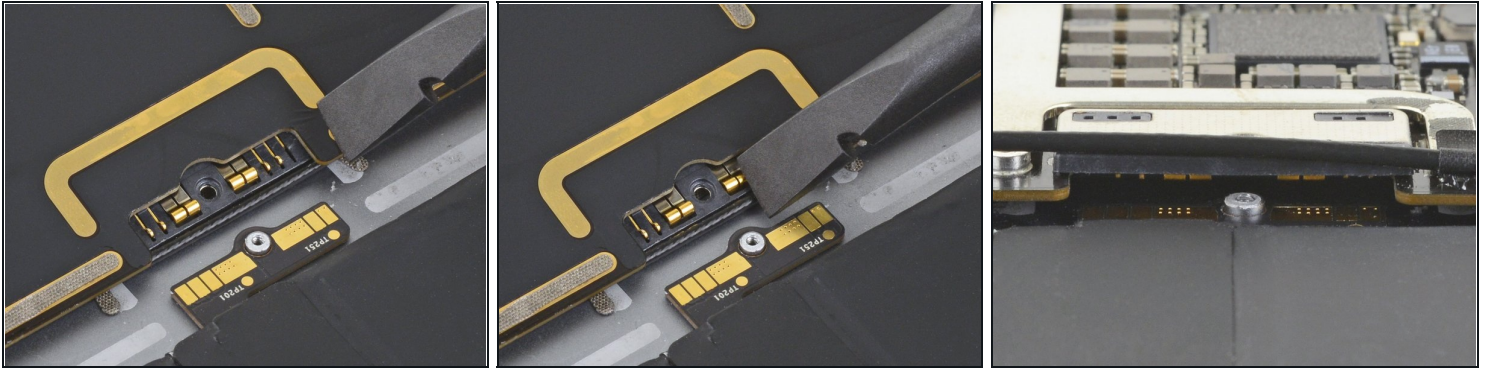
- Use a Phillips driver to remove the 1.7 mm-long screw securing the battery connector.

Step 32



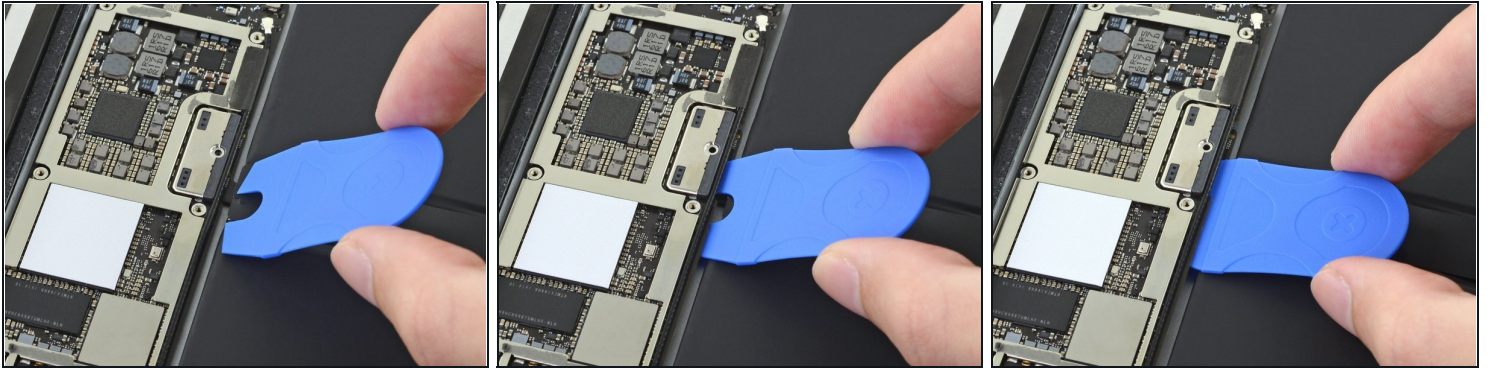
- ☑ If the EMI shield has any sharp protrusions after removal, you should flatten them before reinstalling the shield.
- Squeeze the sharp protrusion with a pair of pliers to flatten it.
- Repeat the process for all sharp protrusions along the edges of the EMI shield.

Step 33 — Battery connector information



- ① 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.
- ① Notice that the battery connector has cantilever springs on the logic board that press against the battery contact pads. Since both the logic board and battery are glued down, you'll need to slide something thin and flexible between the contact points to disconnect the battery.

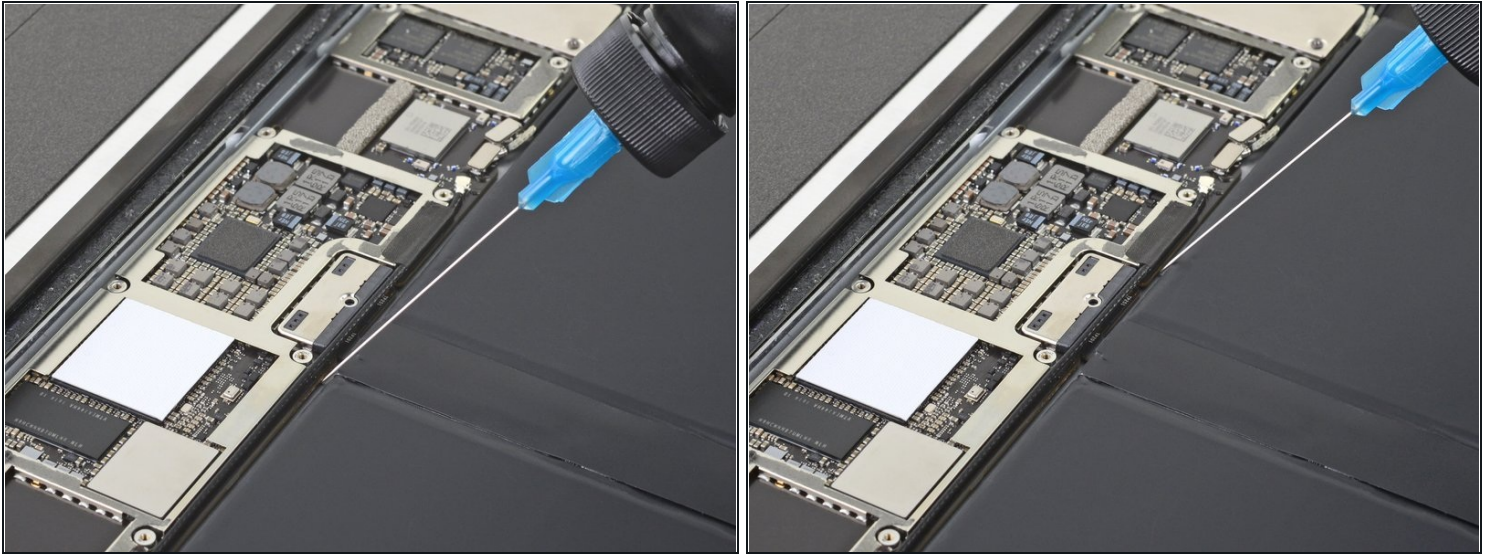
Step 34 — Disconnect the battery



⚠ Be careful when you isolate the battery using a battery blocker. The battery contacts are easily bent or broken, resulting in irreversible damage.

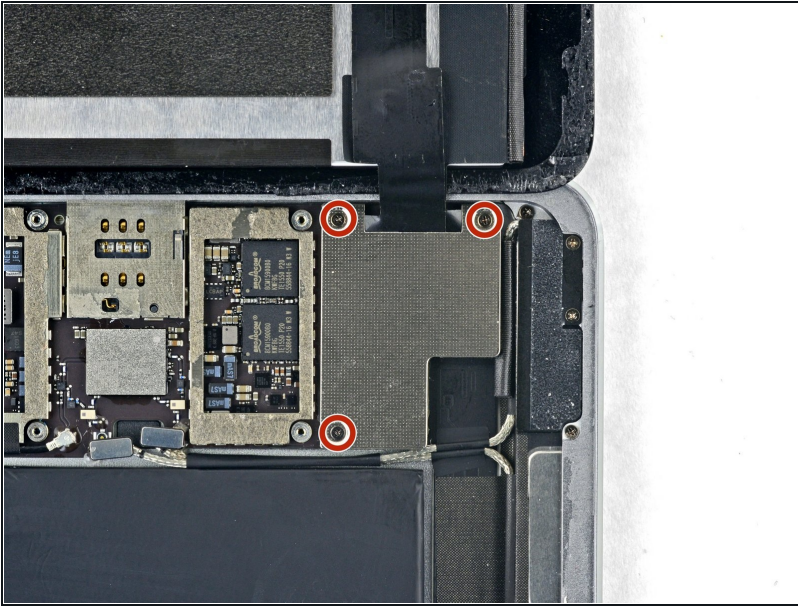
- ① Ensure that the iFixit logo on the battery blocker is facing up.
- Slide the battery blocker underneath the left side of the logic board's battery connector at a 35 degree angle.
 - ① The battery blocker's right prong should slide between the left side of the logic board's battery connector and the battery's contact pads. The left prong should slide under the logic board.
 - ① Don't push the battery blocker underneath the connector or logic board with excessive force. If you're having trouble fitting the battery blocker underneath the logic board, refer to the next step for information on loosening the logic board. You can also try [using a playing card](#) to disconnect the battery instead.
 - ① The battery blocker or playing card should slide under the logic board without encountering any blockages. After insertion, they should rest at a 15 degree angle.
- Leave the battery blocker in place as you work.

Step 35 — Logic board adhesive information



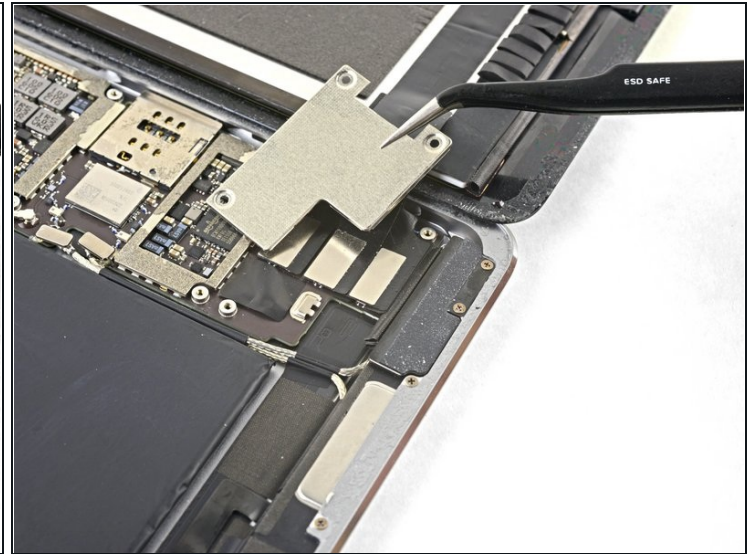
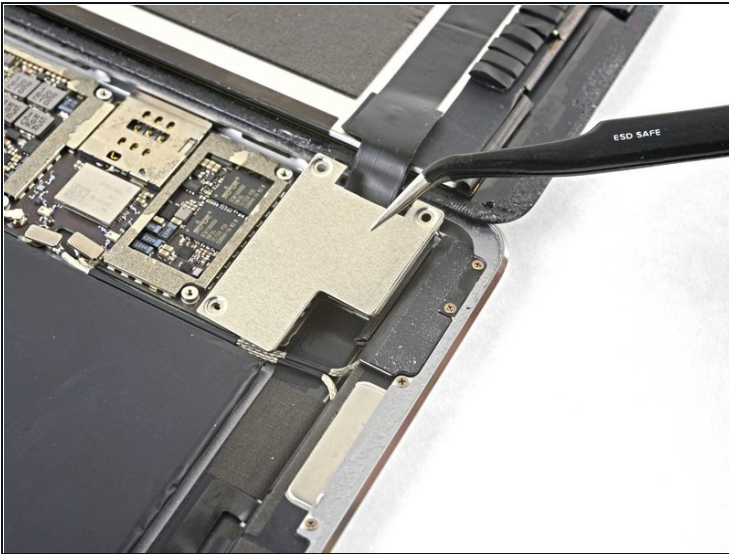
- ⓘ If the battery blocker doesn't easily slide under the logic board, follow these steps to partially loosen the logic board from the frame:
- Apply a few drops of high-concentration (90% or higher) isopropyl alcohol under the logic board to the left and right of the battery connection.
 - Wait one minute for the isopropyl alcohol to weaken the adhesive under the logic board.
 - Try to insert the battery blocker. If the logic board doesn't easily lift up, apply a few more drops of isopropyl alcohol.
- ⓘ This doesn't apply when using the playing card method to disconnect the battery because the playing card is only inserted between the battery connector and the battery contact pads.

Step 36 — Remove the display bracket screws



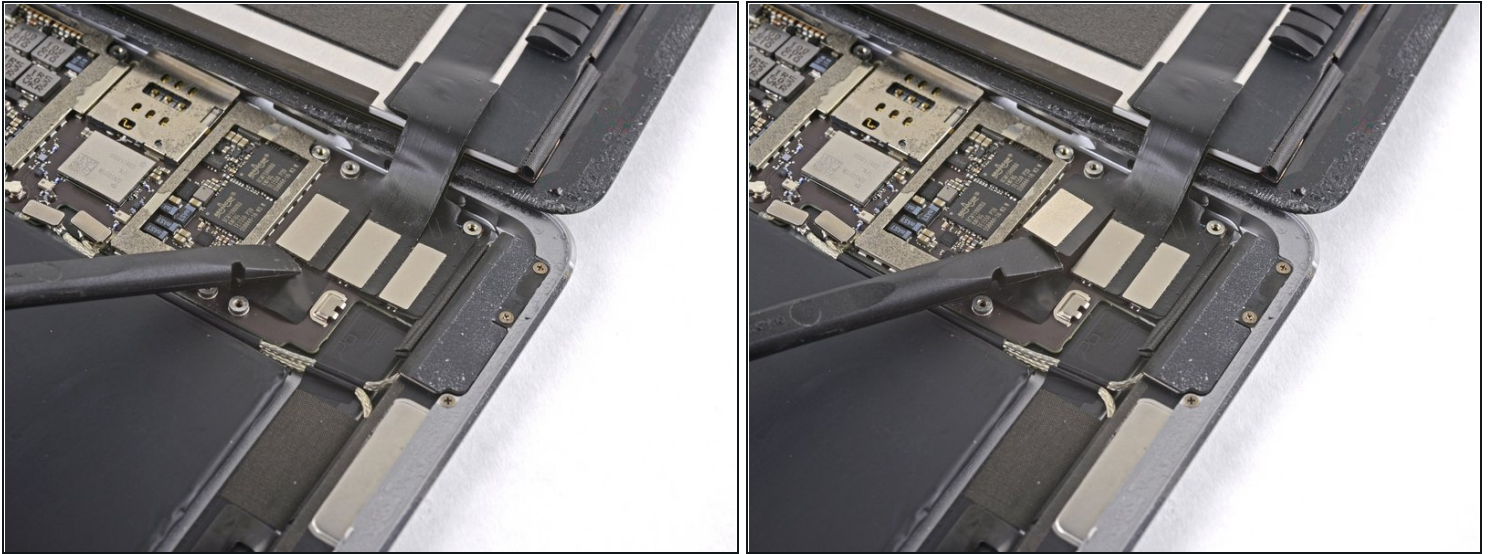
- Use a Phillips screwdriver to remove the three 1.3 mm Phillips screws securing the display cable bracket.

Step 37 — Remove the bracket



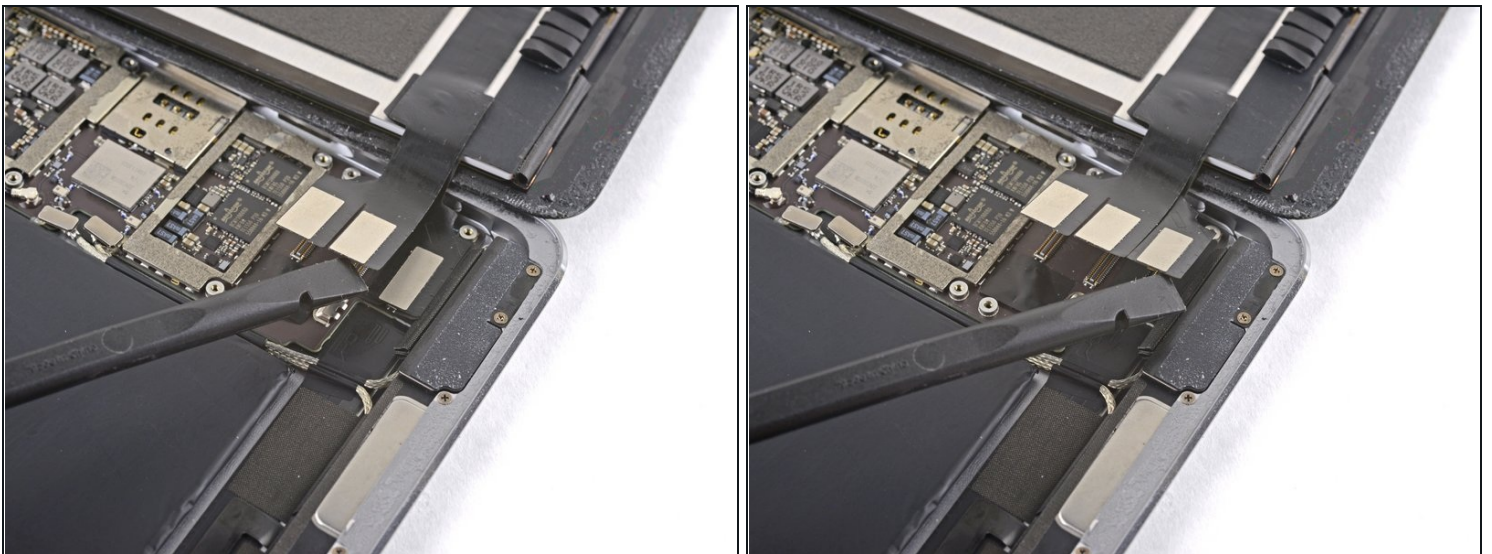
- Remove the display cable bracket.

Step 38 — Disconnect the display assembly



- Use the flat end of the spudger to disconnect the display assembly connector from the motherboard socket.

Step 39



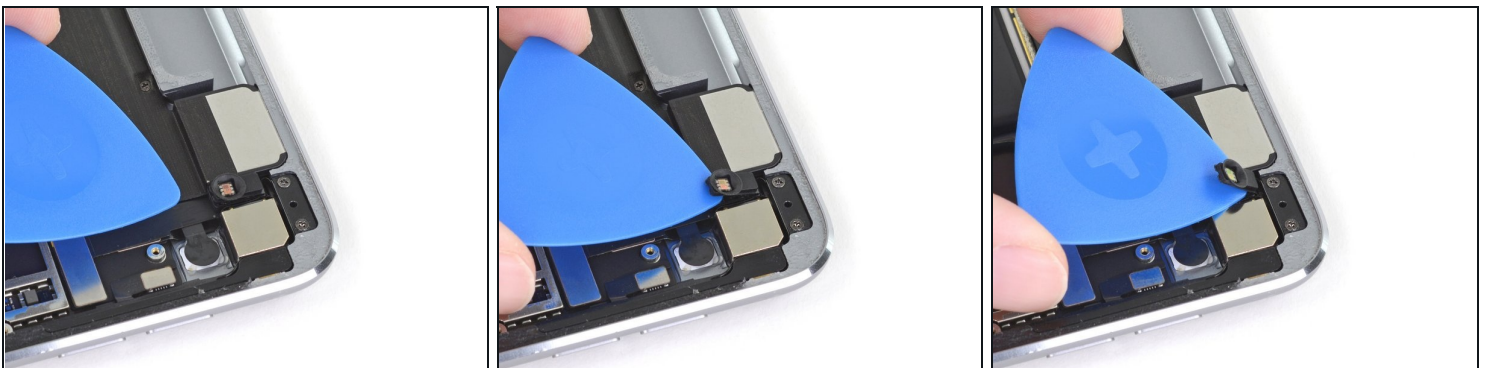
- Repeat the previous step for the two remaining connectors.

Step 40 — Remove the display assembly



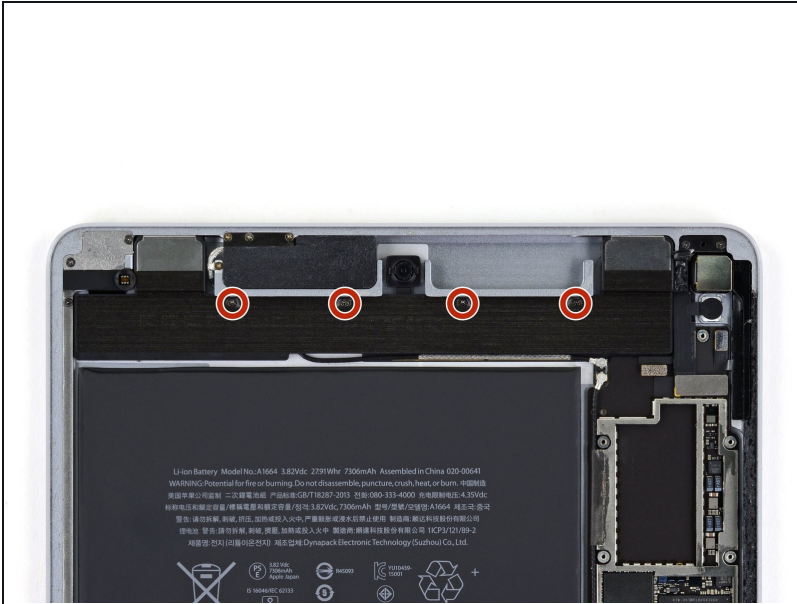
- Remove the display assembly from the frame.
- ☑ If you are reusing the original display assembly, [follow this display adhesive application guide](#) to apply replacement display adhesive during reassembly.

Step 41 — Detach the right ambient light sensor



- Slide an opening pick under the right ambient light sensor to loosen its adhesive.
- ☑ There are two pegs on the shelf that position the ambient light sensor—one on the bottom edge and one near the top edge.

Step 42 — Remove the four screws



- Use a Phillips screwdriver to remove the four 1.9 mm-long screws securing the upper speaker to the frame.

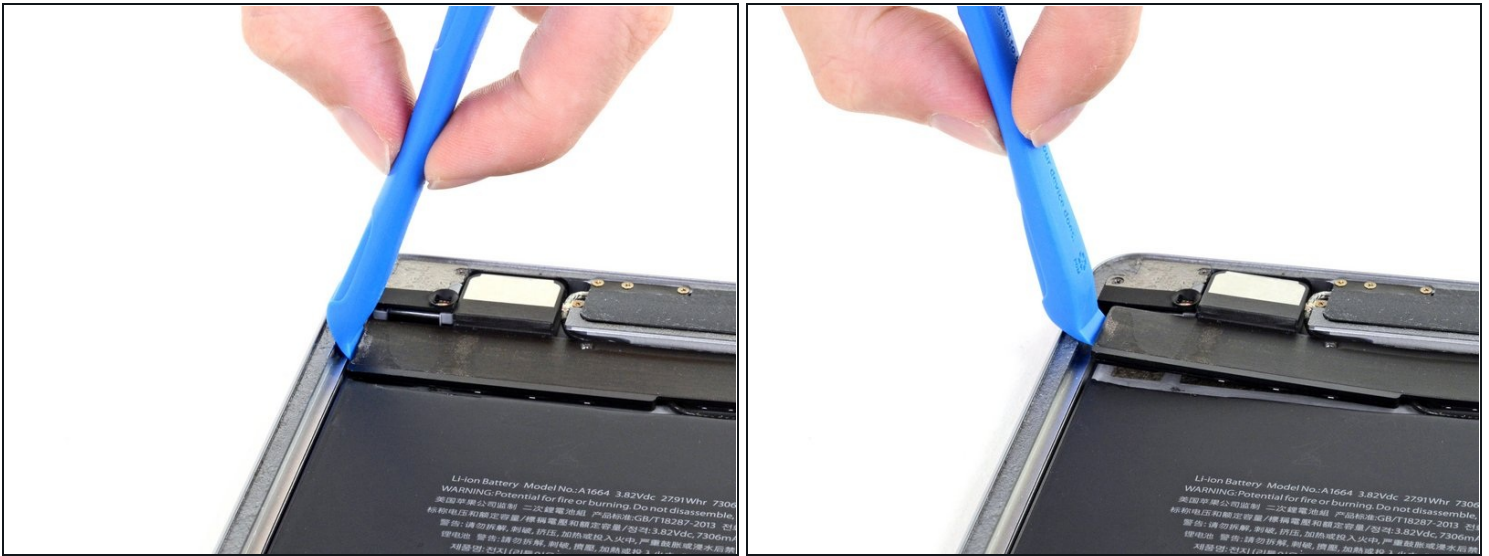
Step 43 — Apply isopropyl alcohol



ⓘ Strong adhesive secures the upper speaker to the frame.

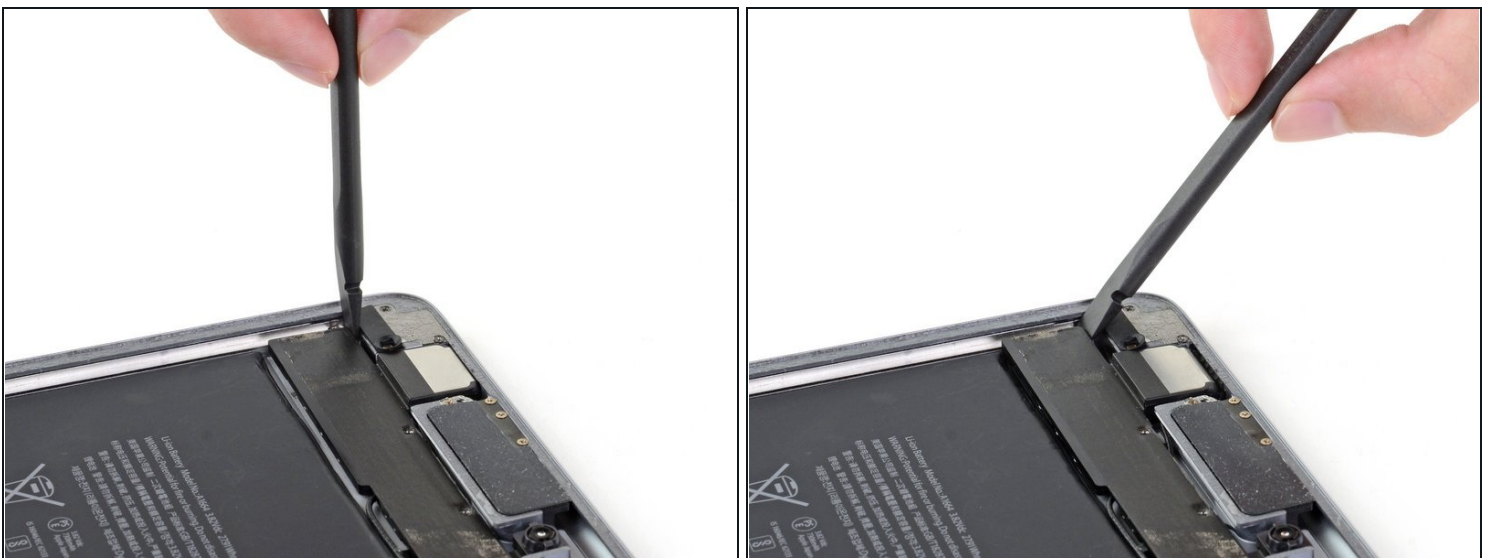
- Apply a few drops of high-concentration (90% or higher) isopropyl alcohol under the upper speaker.
- Wait one minute for the isopropyl alcohol to weaken the adhesive under the upper speaker.

Step 44 — Pry up the upper speaker



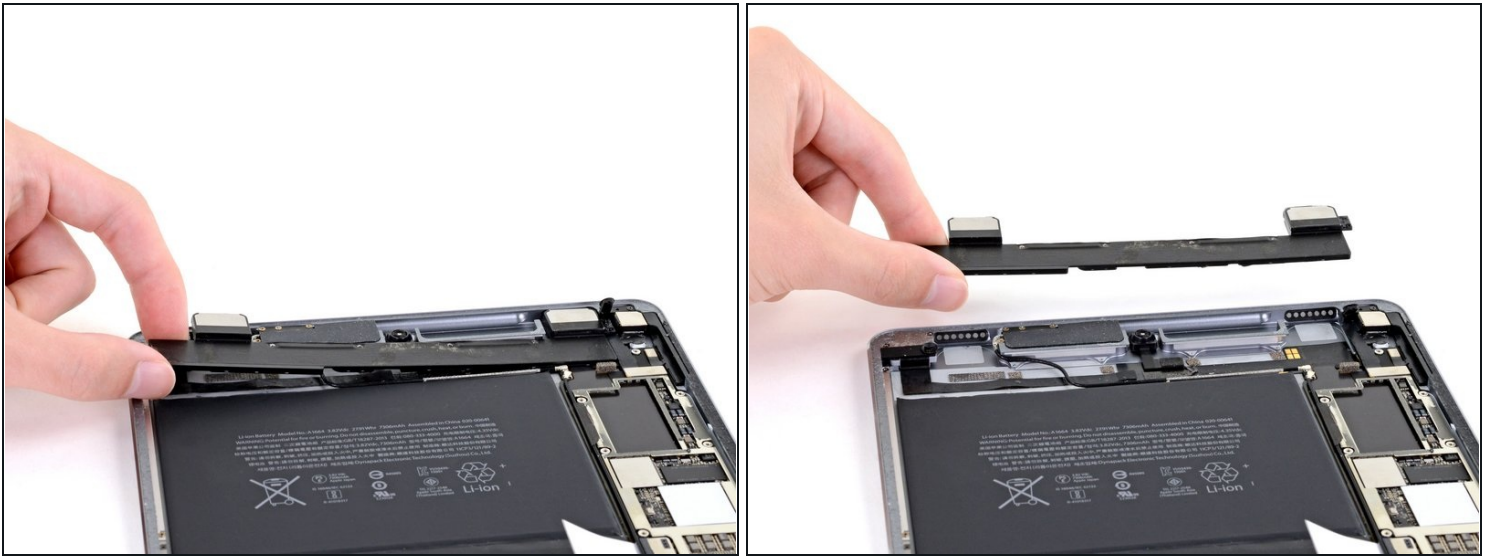
- Use an opening tool to pry up the left edge of the upper speaker.
 - ⚠ Try to avoid bending the upper speaker while prying it up. Some bending will likely happen during this process, but excessive bending may damage the upper speaker.
 - ⓘ If the upper speaker isn't detaching from the frame, apply a few more drops of isopropyl alcohol.

Step 45 — Move the left side of the upper speaker



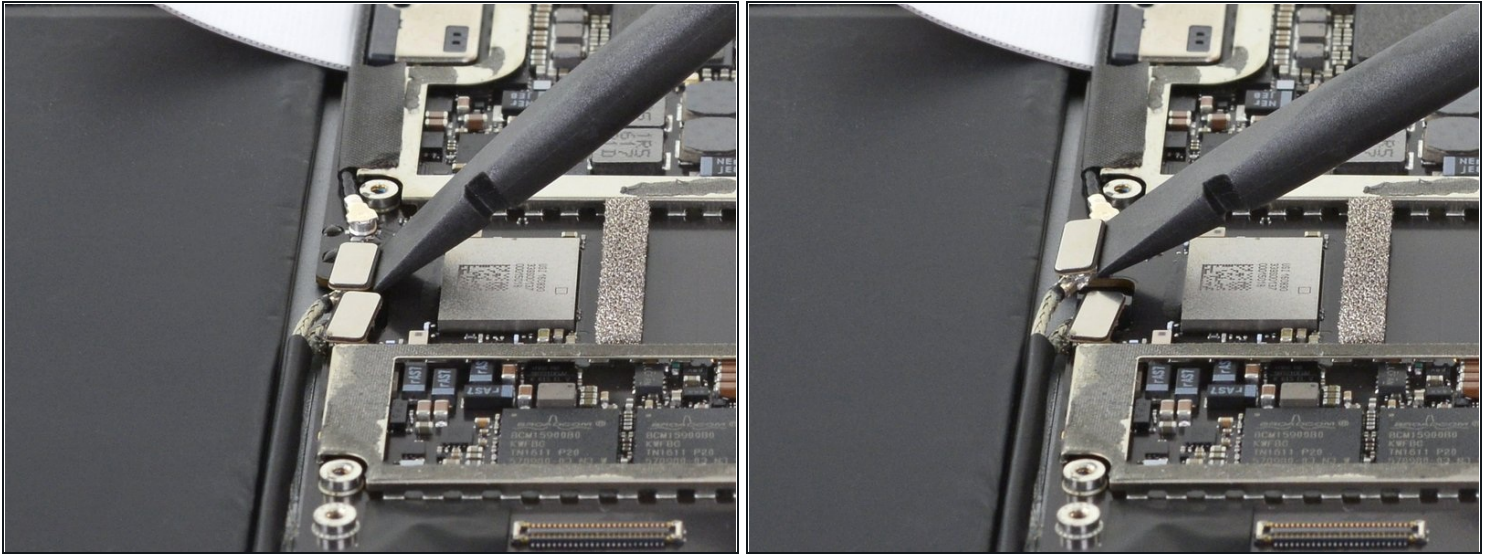
- Use the flat end of a spudger to push the left side of the upper speaker toward the battery just enough for the left speaker to slide out of its recess in the frame.

Step 46 — Remove the upper speaker



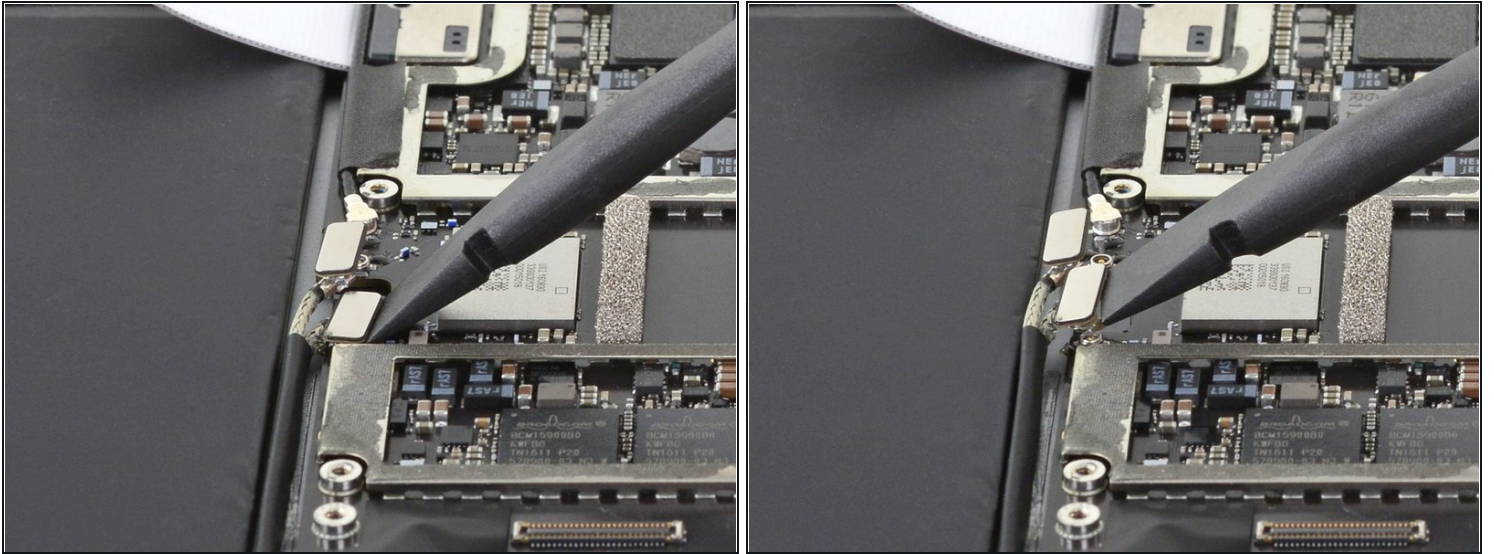
- Lift and remove the upper speaker from the frame.
 - ⚠ There are multiple cables under the upper speaker. Be careful not to damage them while removing it.
- ① If any cables are still attached to the upper speaker while you lift it up, carefully peel them off of the upper speaker. You can apply more isopropyl alcohol if they don't easily peel away.
- ① If the [ZIF connector sticker](#) near the front camera comes off while removing the upper speaker, reapply it to the ZIF connector.
- ① If the [ZIF connector](#) near the front camera disconnects while removing the upper speaker, use the pointed end of a spudger to flip up the locking flap. Then, reinsert the ribbon cable and close the locking flap.
- ★ During reassembly, make sure the [right ambient light sensor](#) is on top of its shelf.
- ★ If there's any alcohol solution remaining in the device, carefully wipe it off or allow it to air dry before reinstalling the upper speaker.

Step 47 — Disconnect the right antenna



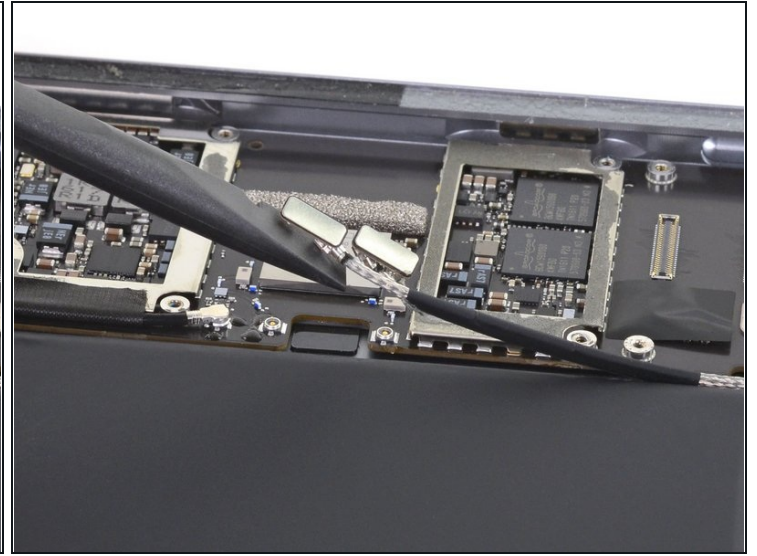
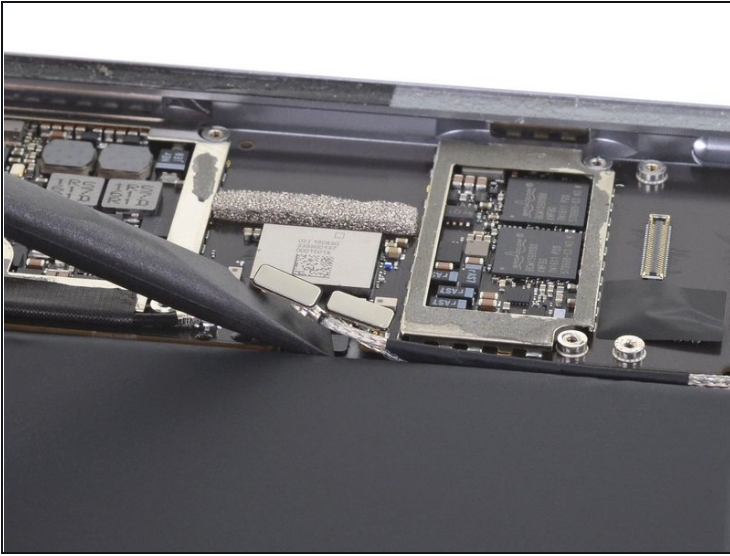
- Use the flat end of a spudger to disconnect the right antenna's coaxial connector from its socket.
- ☑ To reinstall, hold the connector in place and gently press straight down. The connector will “snap” into its socket.

Step 48 — Disconnect the left antenna



- Use the flat end of a spudger to disconnect the left antenna's coaxial connector from its socket.
- ☑ To reinstall, hold the connector in place and gently press straight down. The connector will “snap” into its socket.

Step 49 — Lift the antenna cables

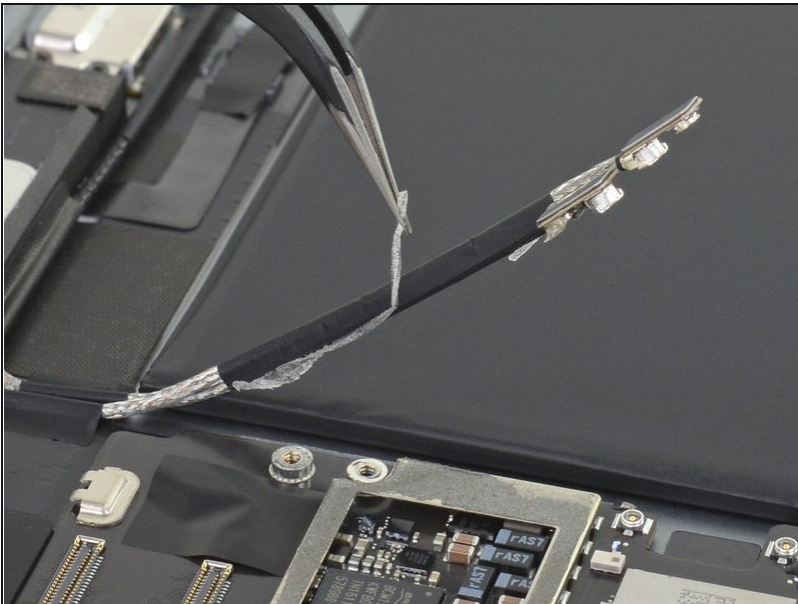


- Use the flat end of a spudger to lift the bundled left and right antenna cables away from the frame.

⚠ Be careful not to puncture the battery with the spudger.

ⓘ The sticker bundling the antenna cables together is lightly adhered to the frame.

Step 50 — Remove the adhesive

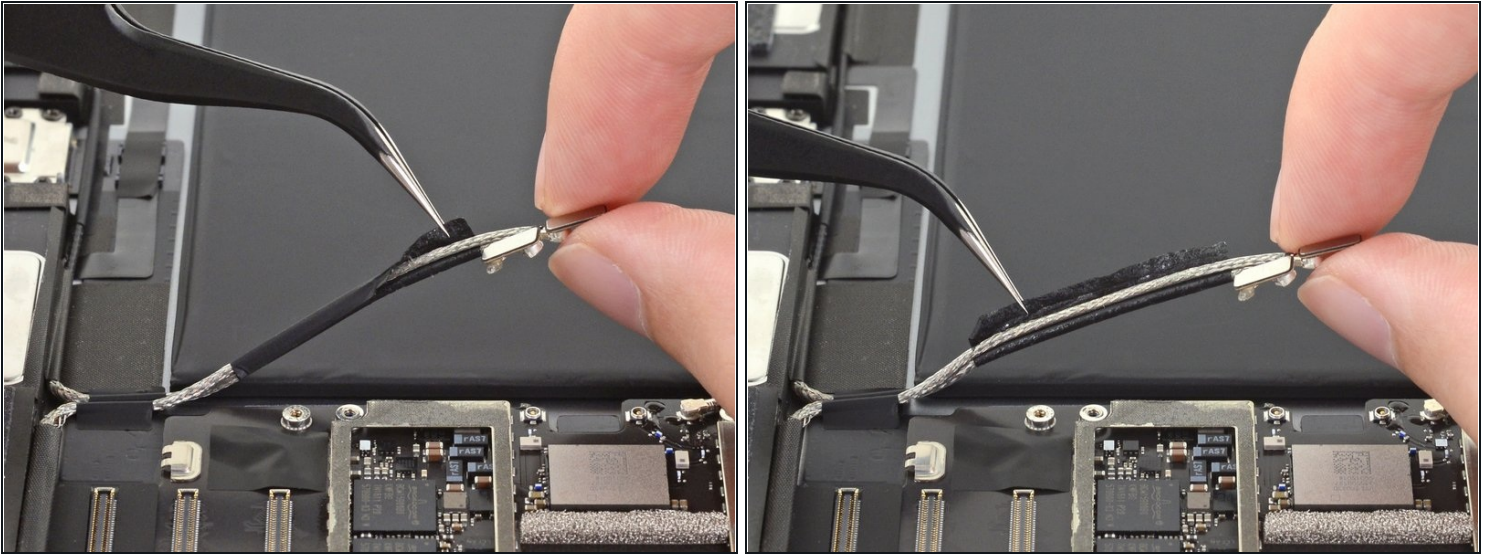


- Use a pair of tweezers to remove the adhesive that was securing the bundled antenna cables to the frame.

⚠ Take care not to damage the antenna cables with the sharp tips on the tweezers.

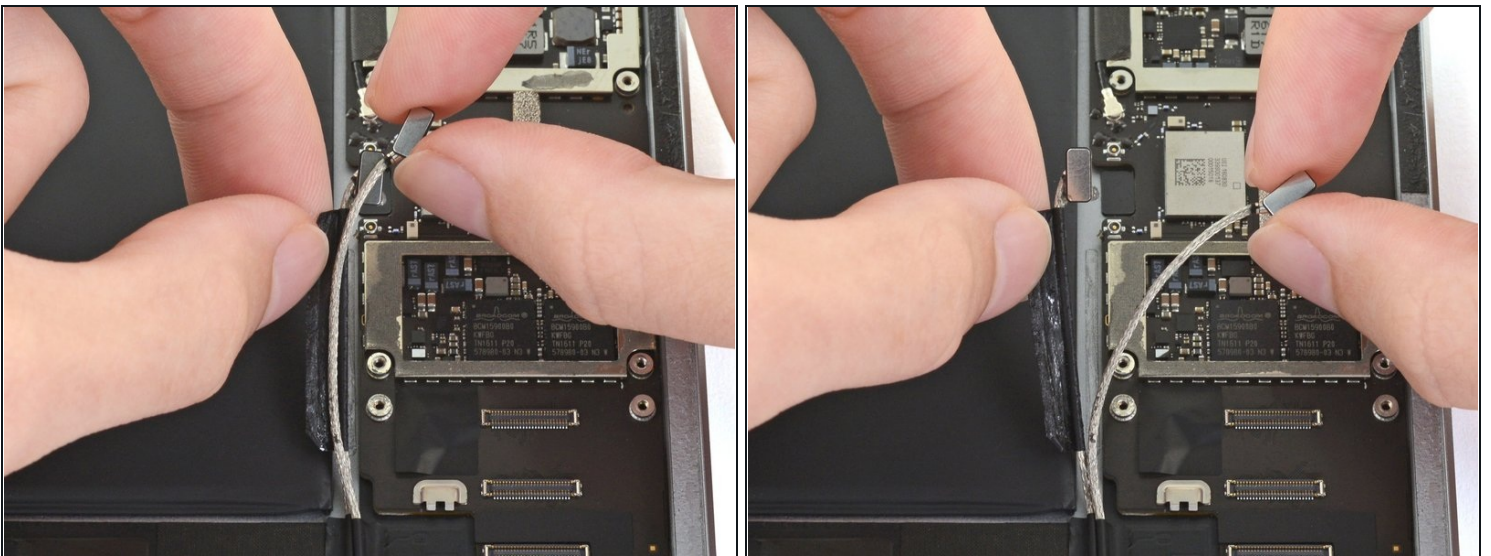
- ☑ During reassembly, apply [pre-cut adhesive](#) to the bundled antenna cables to secure them to the frame.

Step 51 — Separate the antenna cables



- Use a pair of tweezers to peel up the sticker bundling the left and right antenna cables together.

Step 52



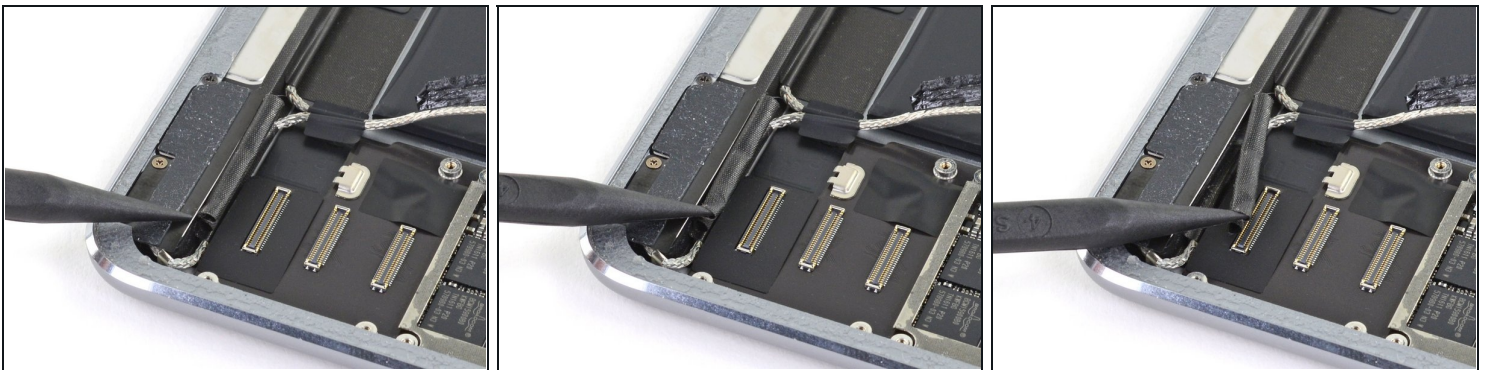
- Peel the right antenna cable off of the sticker.

Step 53 — Lift up the small sticker



- Use a pair of tweezers to lift up the small sticker near the lower right speaker securing the right antenna to the frame.

Step 54 — Detach the foam spacer



- Use the pointed end of a spudger to detach the foam spacer adhered to the second right antenna sticker.

Step 55 — Remove the foam spacer



- Remove the foam spacer from the second right antenna sticker.

Step 56 — Detach the large sticker



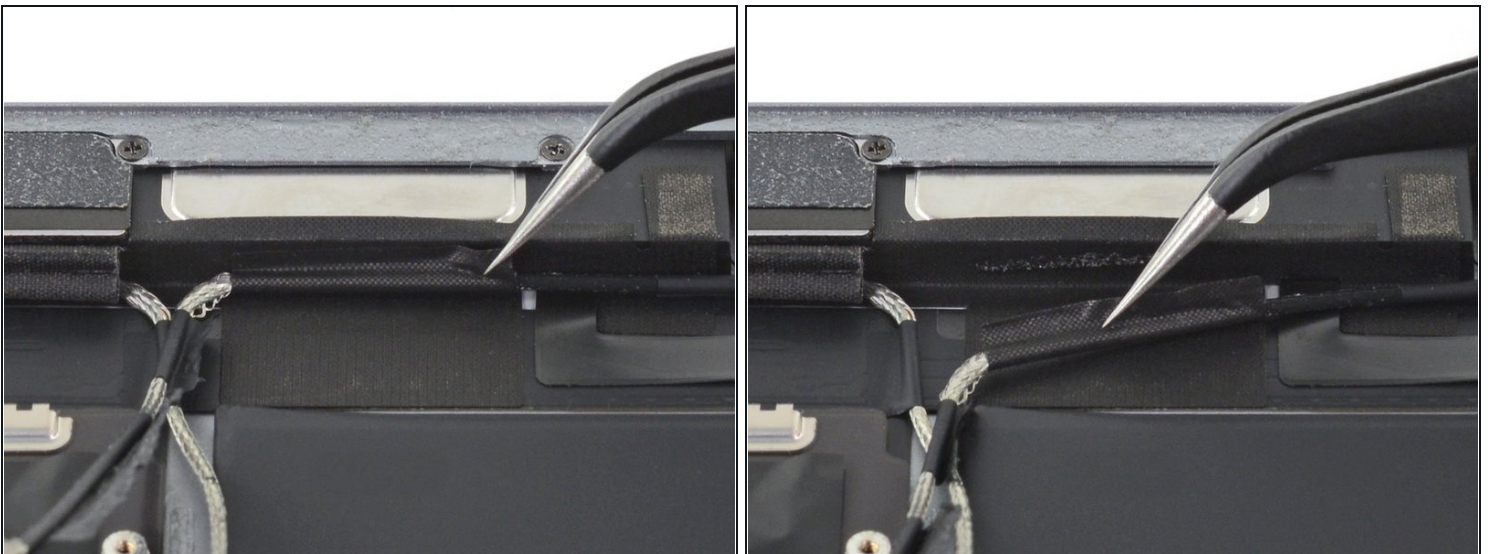
- Use a pair of tweezers to detach the large right antenna sticker between the logic board and the antenna.

Step 57 — Lift up the first sticker



- Use a pair of tweezers to lift up the small sticker next to the lower right speaker securing the left antenna cable to the frame.

Step 58 — Detach the second sticker



- Use a pair of tweezers to detach the large left antenna cable sticker near the lower right speaker.

Step 59 — Lift up the third sticker



- Use a pair of tweezers to lift the left antenna and its third sticker away from the Lightning port area of the frame.

Step 60 — Detach the foam spacer



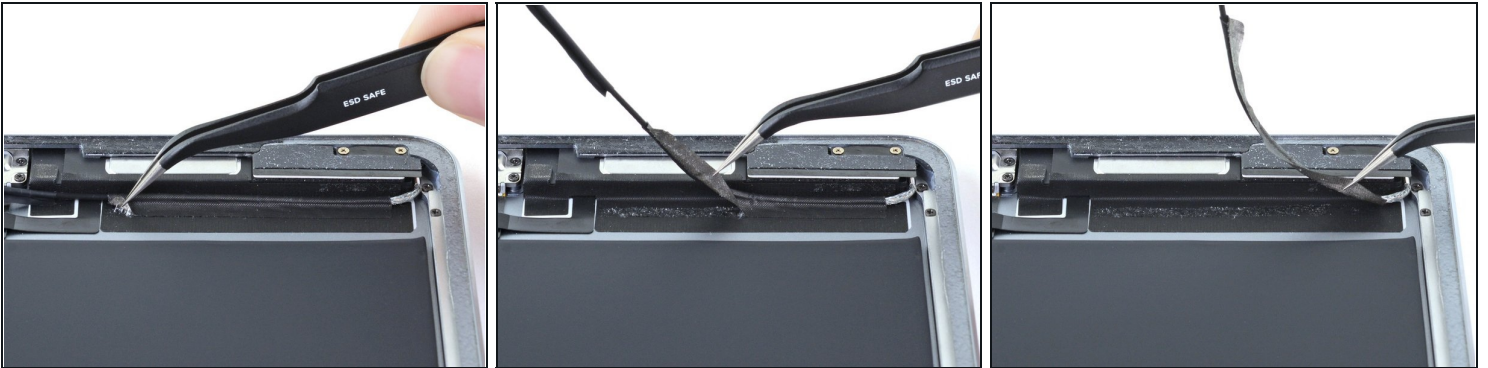
- Use the pointed end of a spudger to detach the foam spacer adhered to the fourth left antenna cable sticker.

Step 61 — Remove the foam spacer



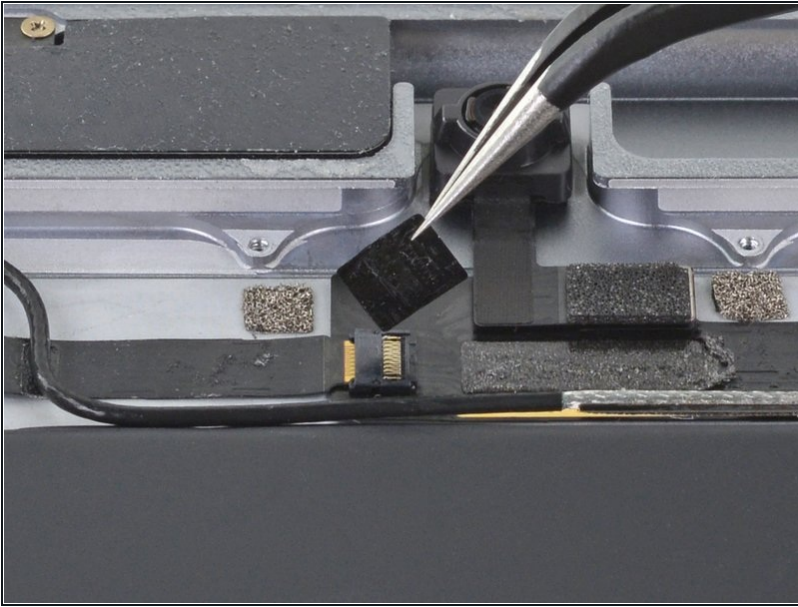
- Remove the foam spacer from the fourth left antenna cable sticker.

Step 62



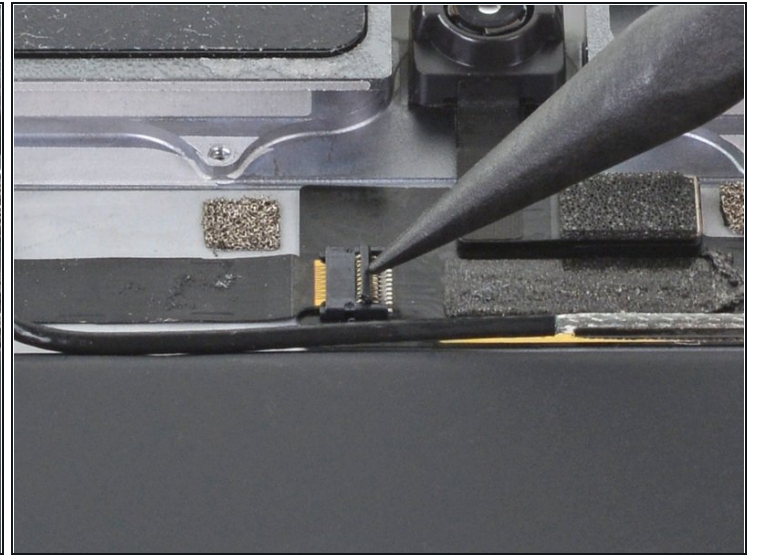
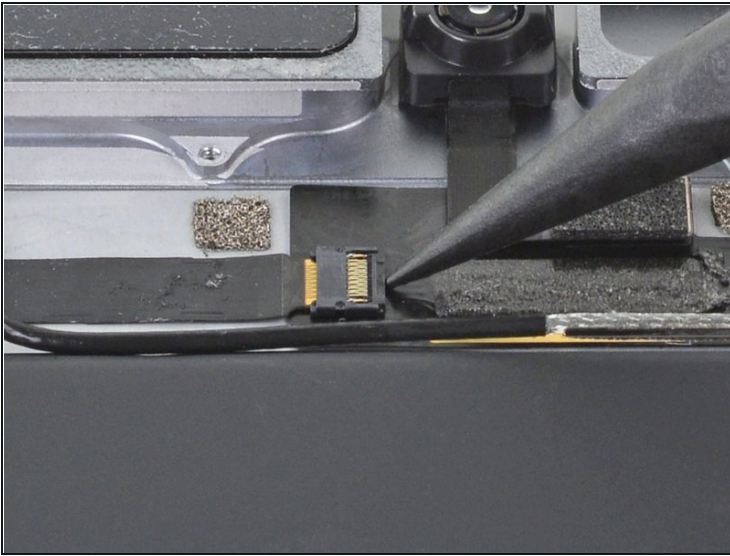
- Use a pair of tweezers to lift up the fourth left antenna cable sticker.

Step 63 — Remove the left ambient light sensor's sticker



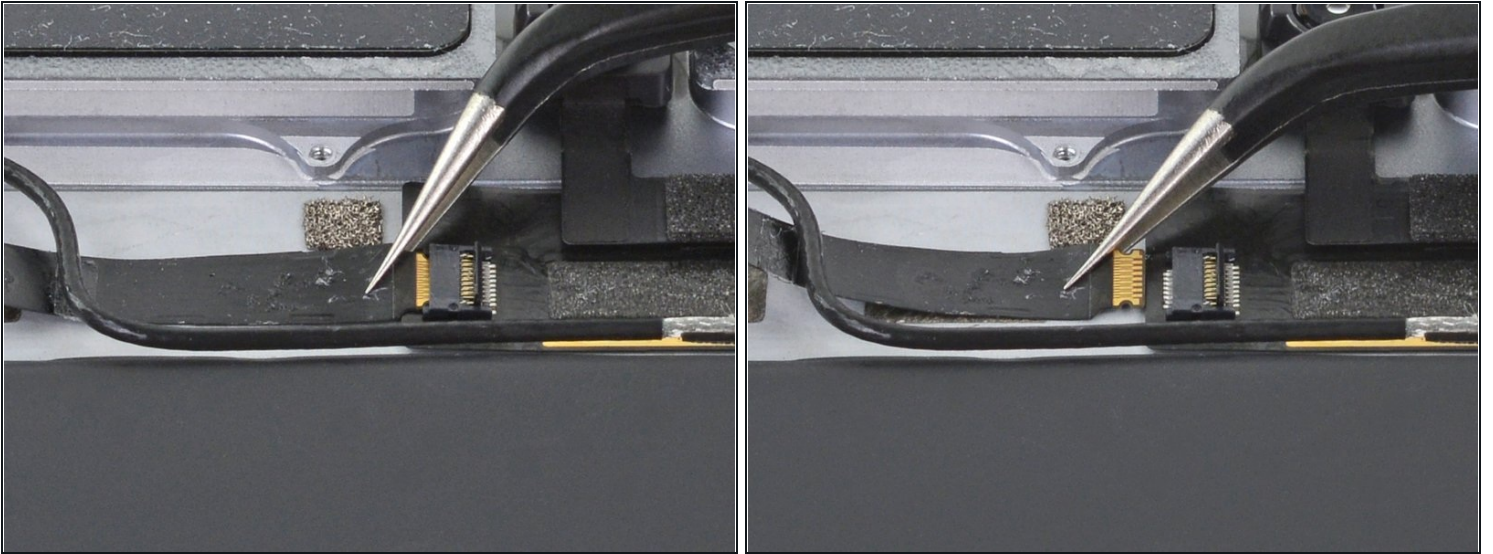
- Use a pair of tweezers to remove the sticker covering the left ambient light sensor's ZIF connector.

Step 64 — Unlatch the ZIF connector



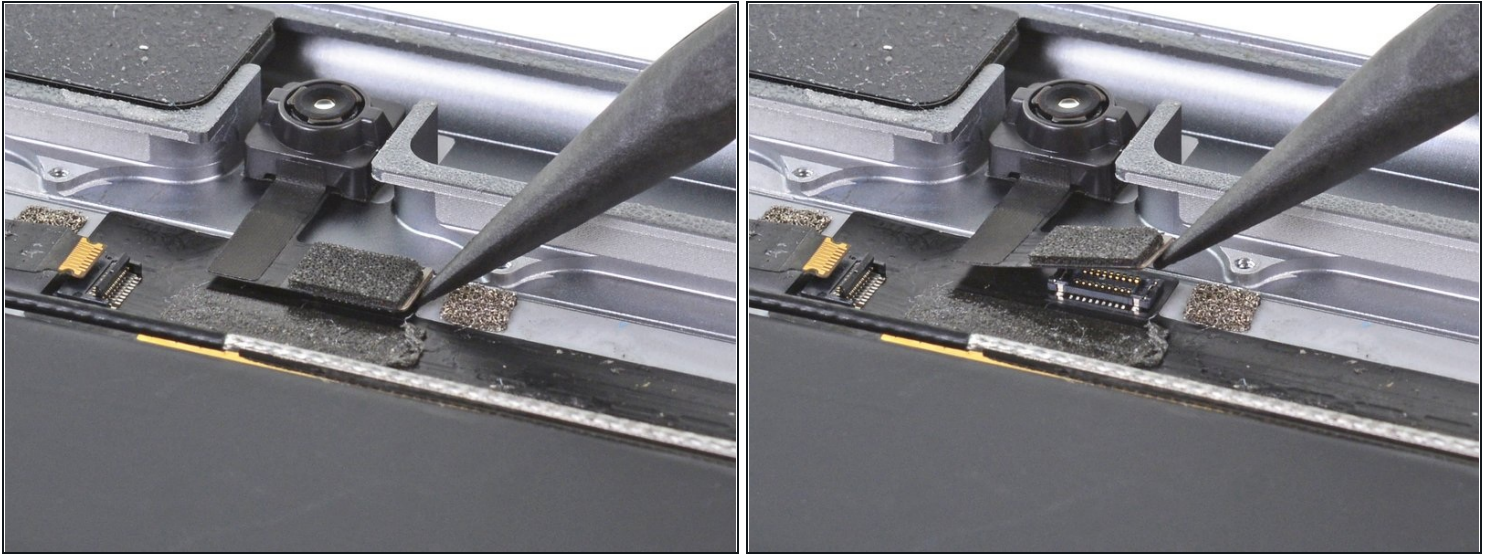
- Use the pointed end of a spudger to flip up the locking flap on the left ambient light sensor's [ZIF connector](#).

Step 65 — Disconnect the left ambient light sensor



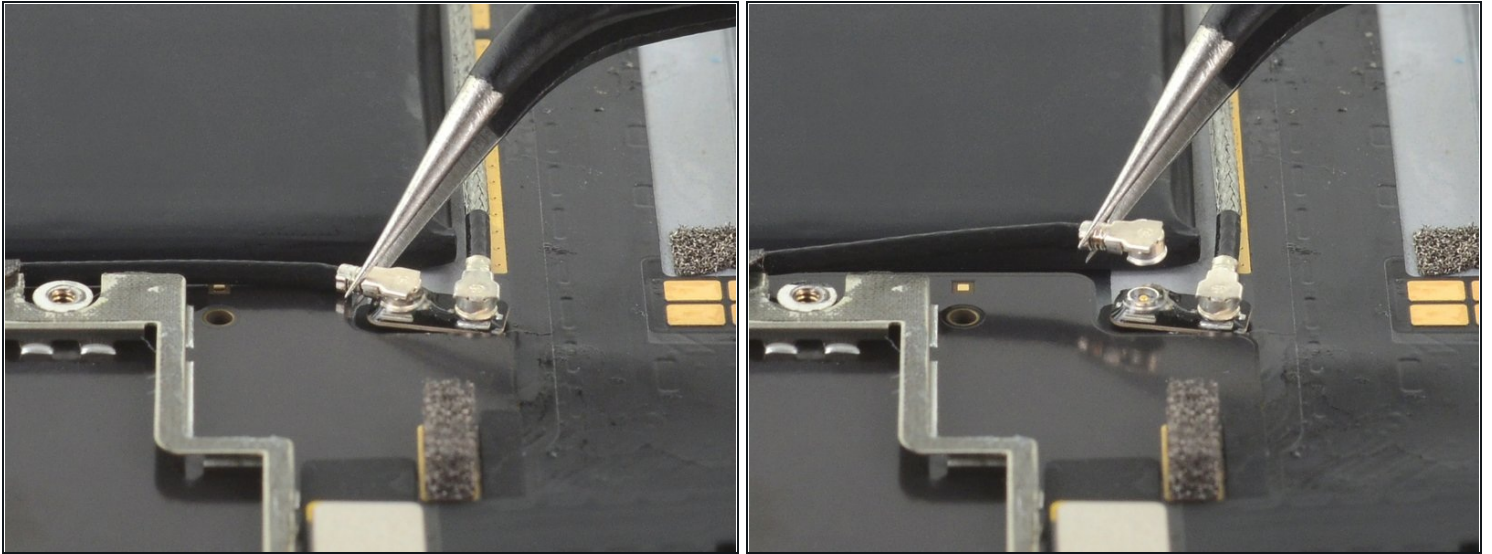
- Use a pair of tweezers to grip the left ambient light sensor ribbon cable as close as possible to its contacts.
- Pull the ribbon cable out of the ZIF connector.

Step 66 — Disconnect the front camera



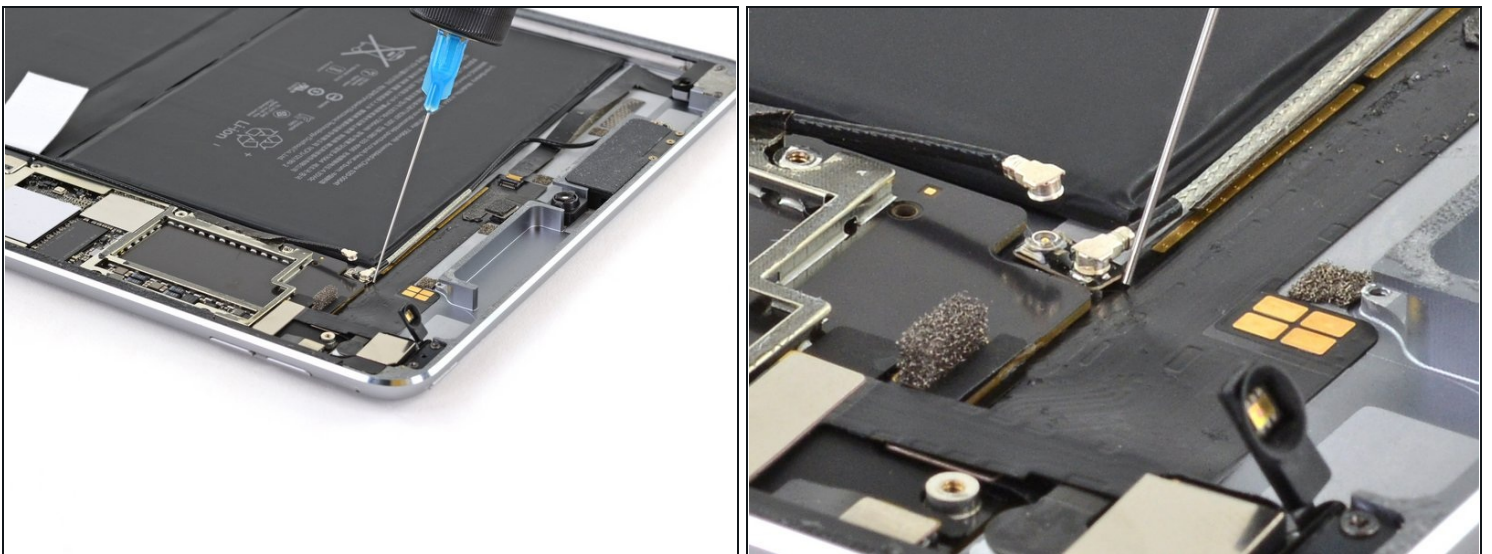
- Use the pointed end of a spudger to disconnect the front camera's [press connector](#) from its socket.
 - ⚠ Be careful to pry only under the edge of the connector, and not under the socket itself. If you pry under the socket, you will separate it from the circuit board.
- ☑ To reconnect, align the connector carefully over its socket and press down with your fingertip—first at one side, then the other—until it clicks into place.
 - ⚠ Do not press down on the middle until the connector is fully seated—if it's misaligned, the connector can bend, causing permanent damage.

Step 67 — Disconnect the coaxial connector



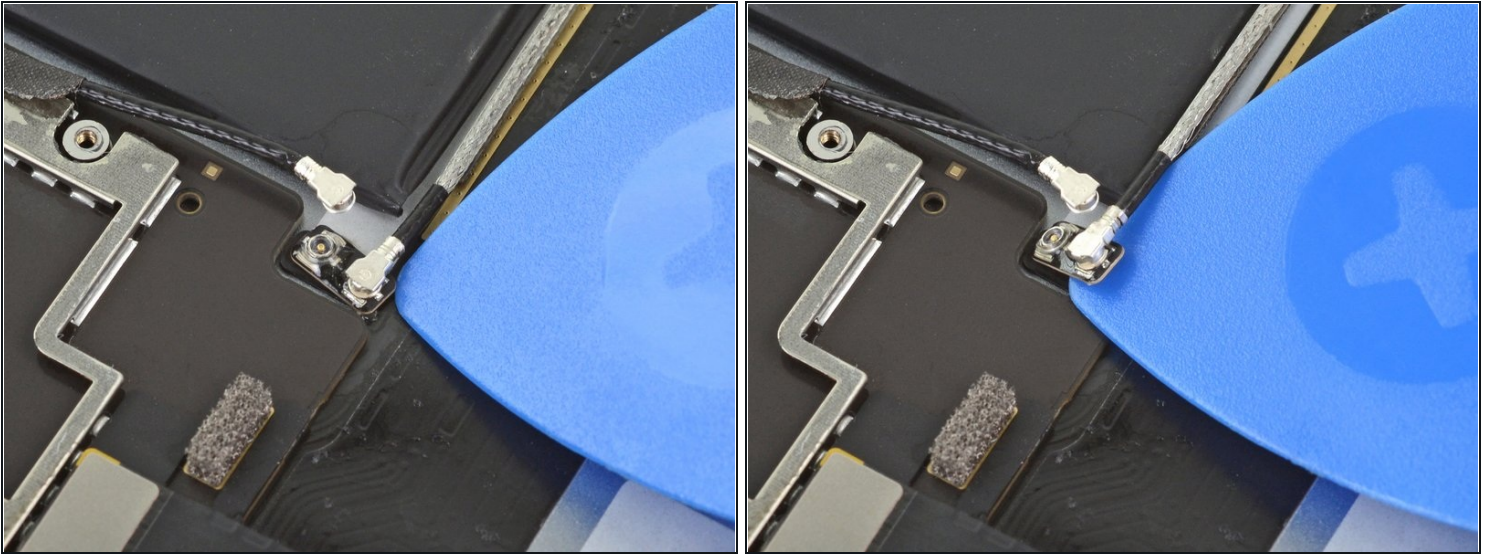
- Use a pair of tweezers to grip the bottom [coaxial connector](#) on the top interconnect board by its metal frame.
- Lift straight up to disconnect the coaxial connector from the interconnect board.

Step 68 — Apply isopropyl alcohol



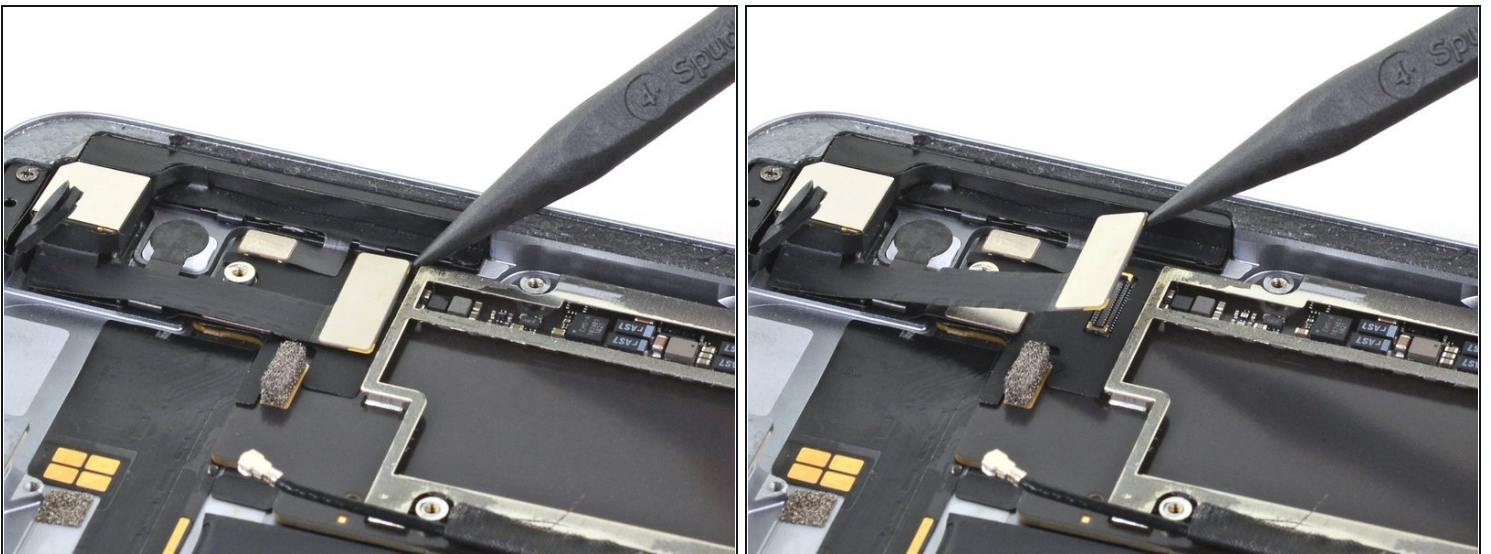
- Apply a few drops of high-concentration (90% or higher) isopropyl alcohol to the edges of the top interconnect board.
- Wait thirty seconds for the isopropyl alcohol to weaken the adhesive under the top interconnect board.

Step 69 — Detach the top interconnect board



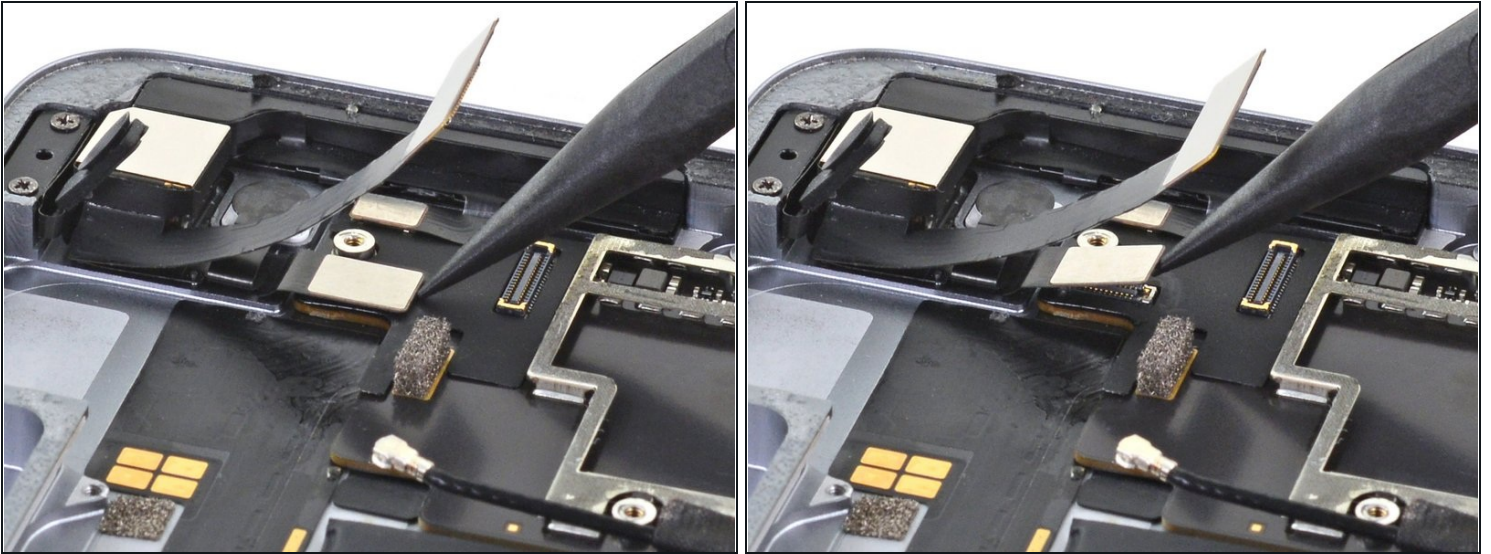
- Use an opening pick to cut through the adhesive under the top interconnect board and detach it from the frame.

Step 70 — Disconnect the rear camera



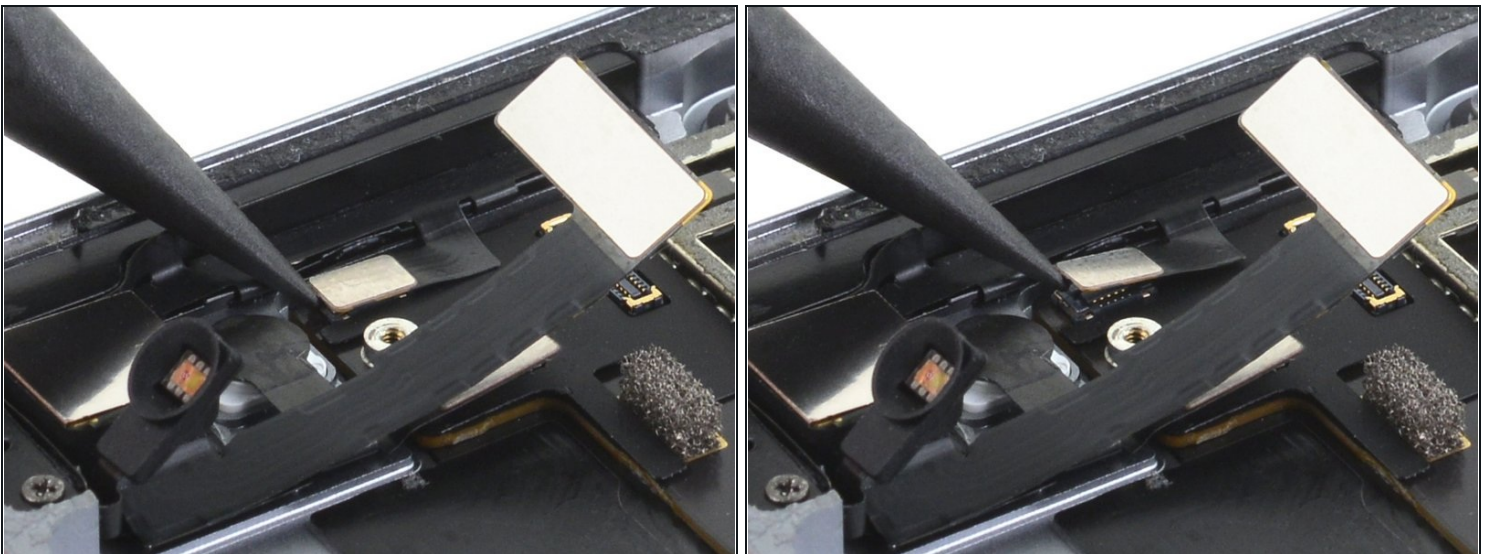
- Use the pointed end of a spudger to disconnect the rear camera's press connector from its socket.

Step 71 — Disconnect the power button assembly



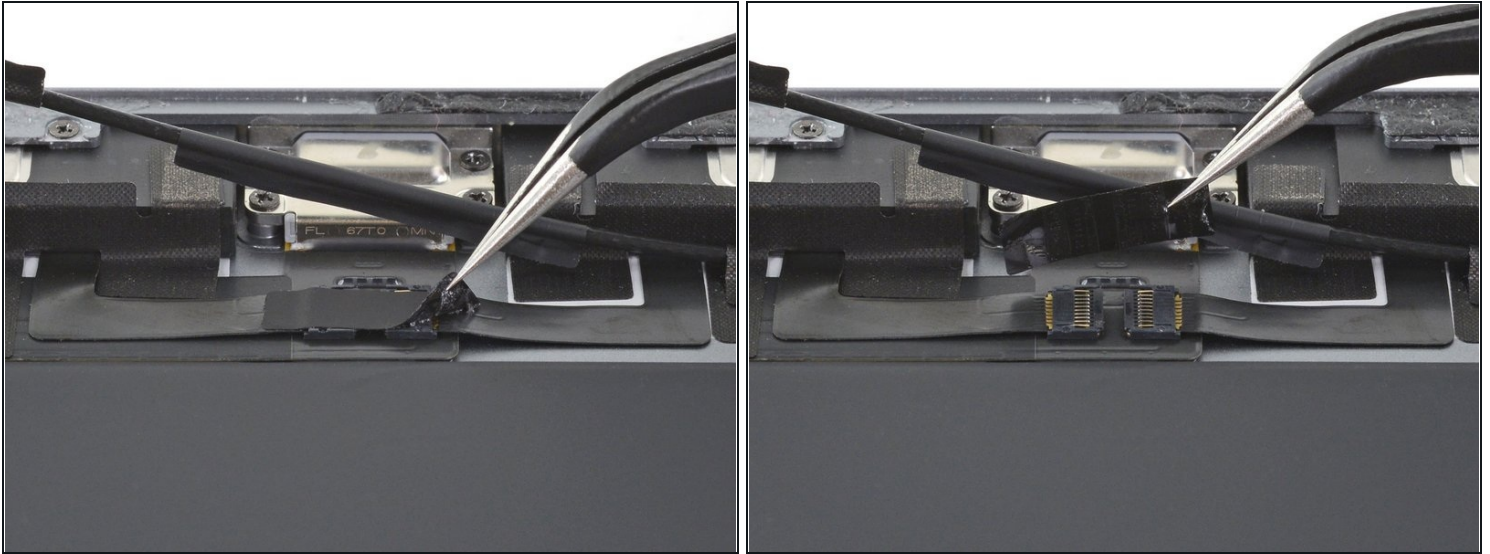
- Use the pointed end of a spudger to disconnect the power button assembly's press connector from its socket.

Step 72 — Disconnect the volume buttons



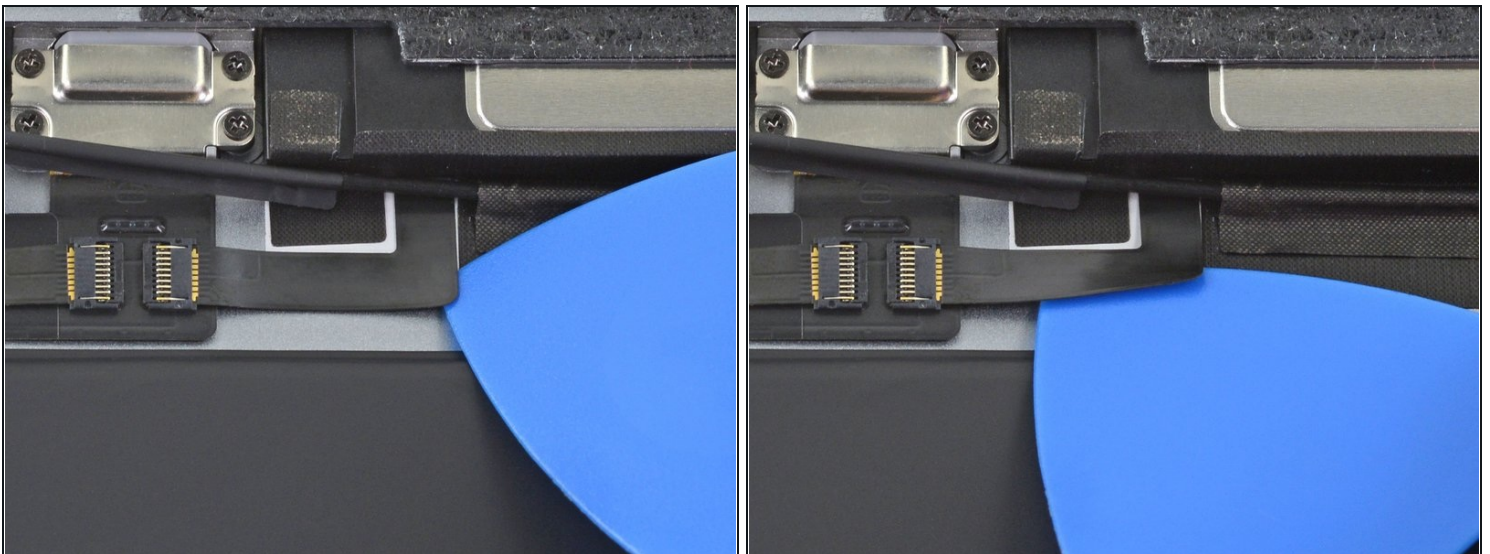
- Use the pointed end of a spudger to disconnect the volume buttons' press connector from its socket.

Step 73 — Remove the sticker from the ZIF connectors



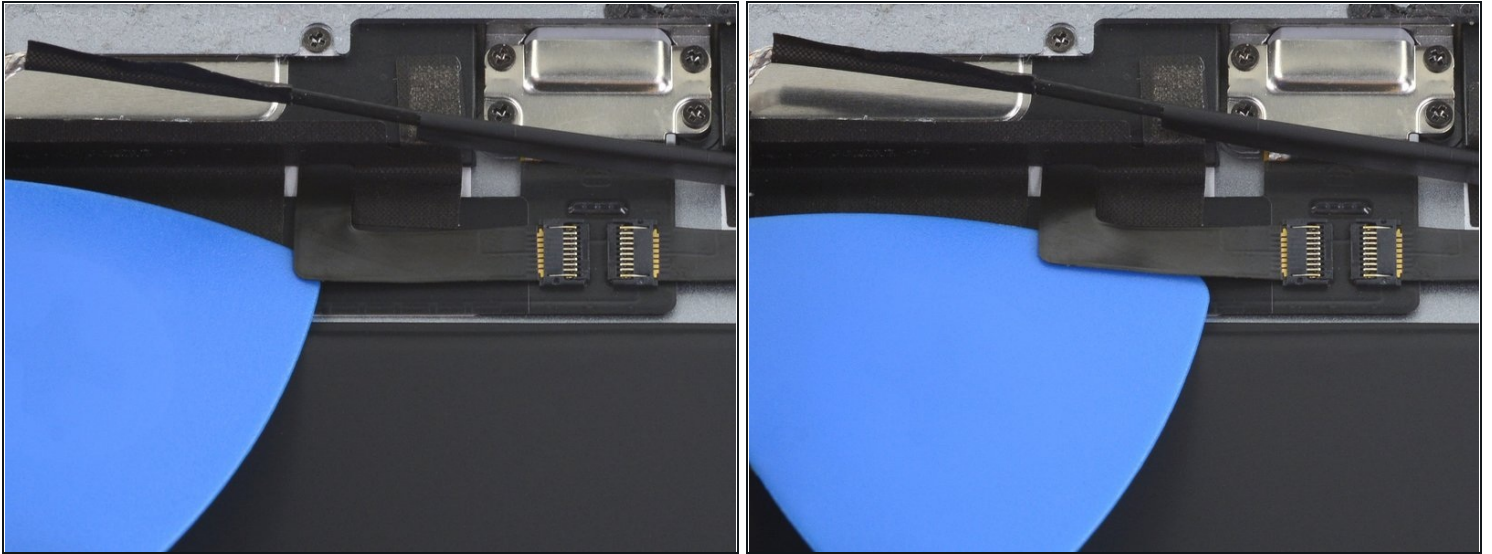
- Use a pair of tweezers to remove the sticker covering the ZIF connectors near the Lightning port.

Step 74 — Detach the right ribbon cable



- Use an opening pick to cut through the adhesive under the right ribbon cable next to the lower speaker (Lightning port oriented up) and detach it from the frame.
⚠ Be careful not to pull the ribbon cable out of the ZIF connector. Pulling the ribbon cable out while the ZIF connector locking flap is closed may damage the connection.

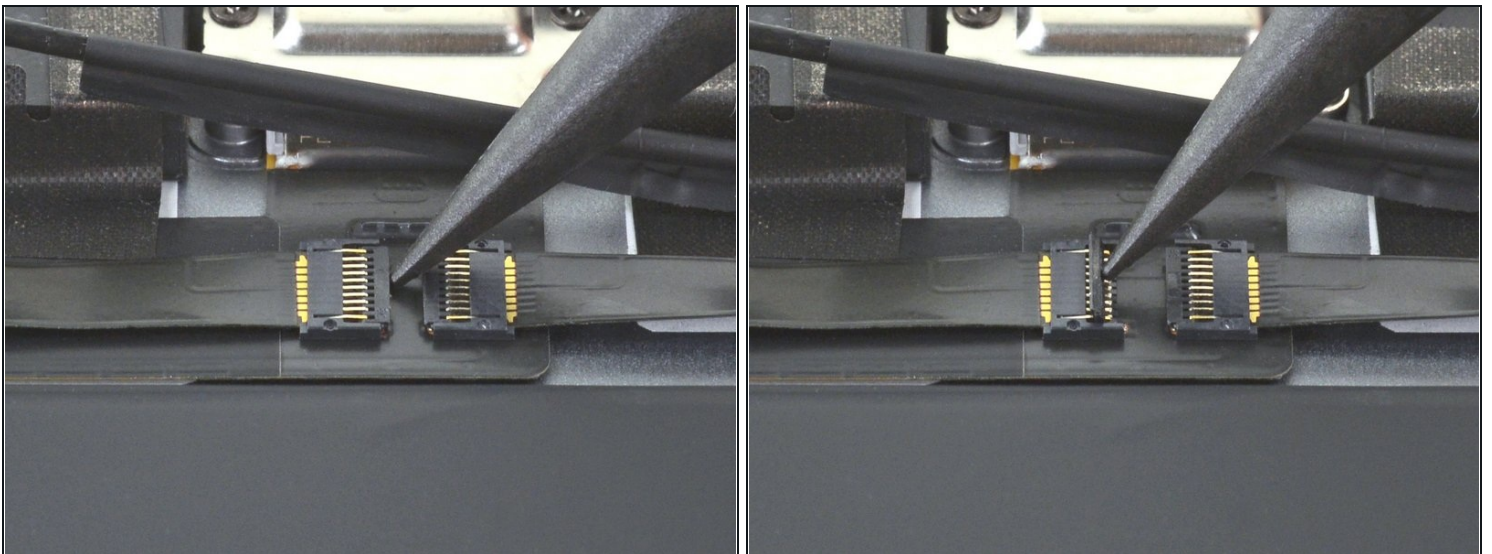
Step 75 — Detach the left ribbon cable



- Use an opening pick to cut through the adhesive under the left ribbon cable next to the lower speaker and detach it from the frame.

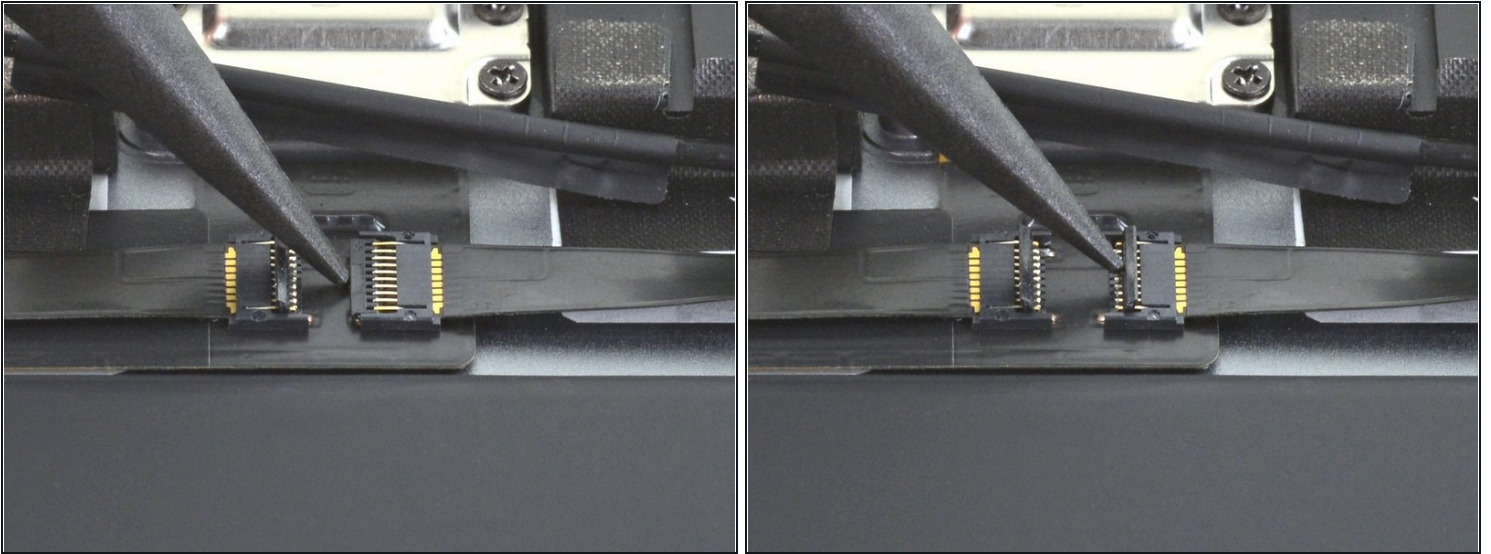
⚠ Be careful not to pull the ribbon cable out of the ZIF connector. Pulling the ribbon cable out while the ZIF connector locking flap is closed may damage the connection.

Step 76 — Disconnect the ribbon cables



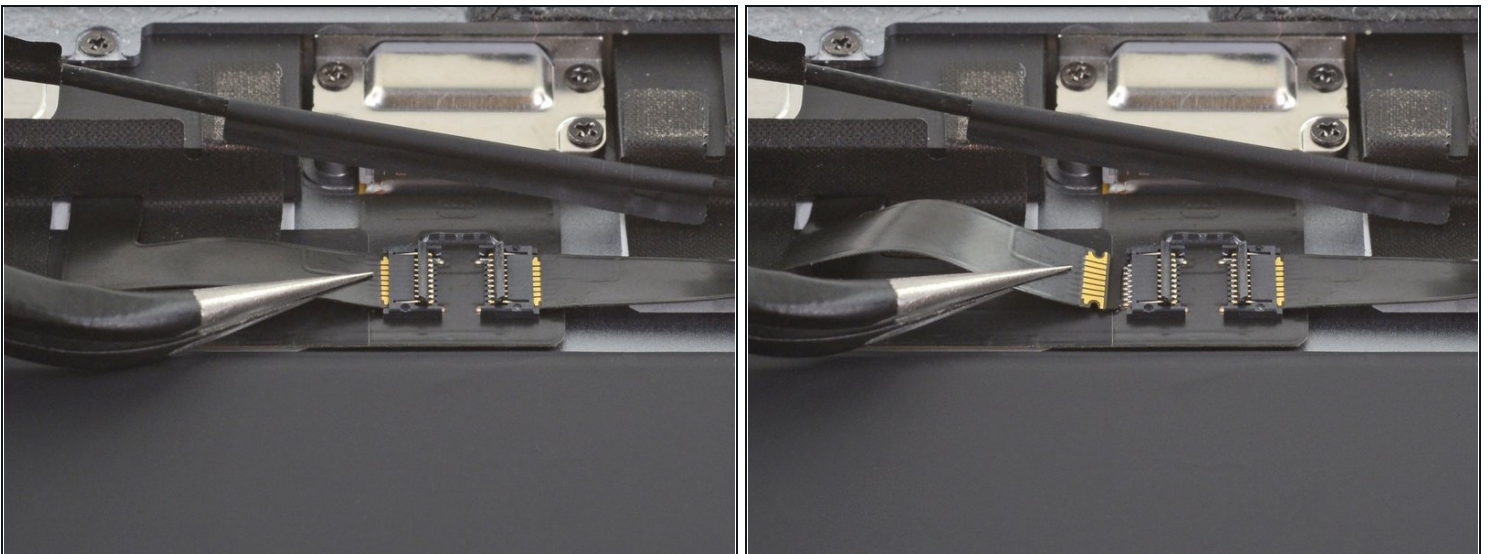
- Use the pointed end of a spudger to flip up the hinged locking flap on the left ribbon cable ZIF connector.

Step 77



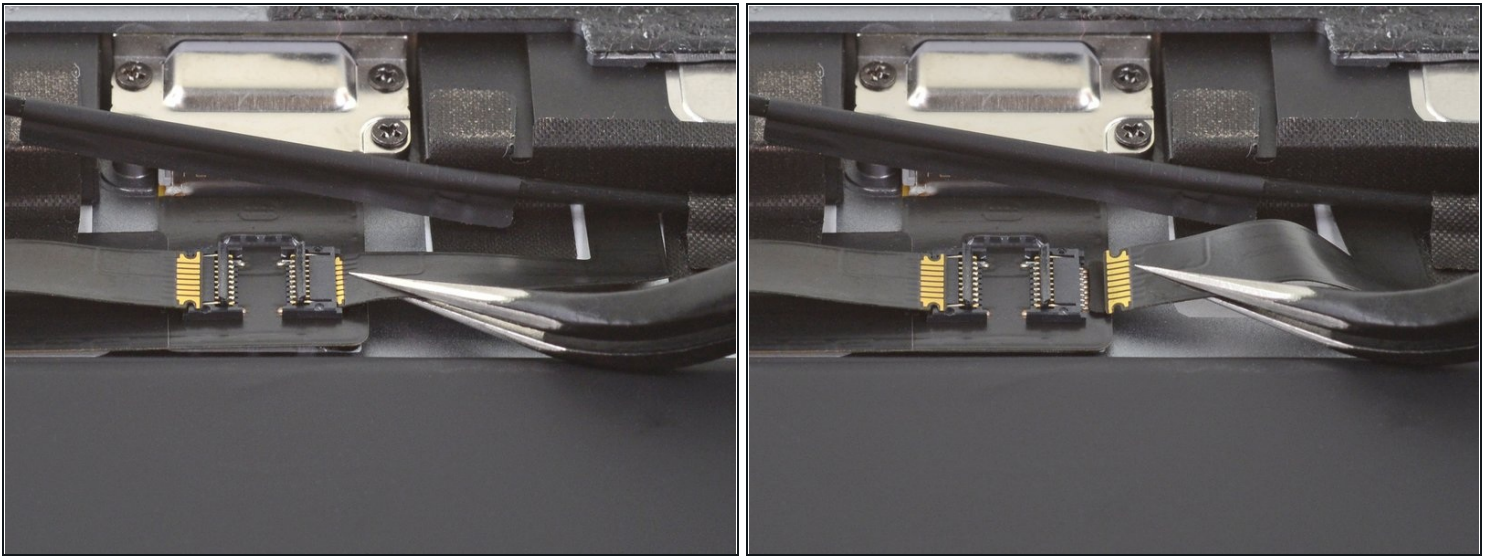
- Use the pointed end of a spudger to flip up the hinged locking flap on the right ribbon cable ZIF connector.

Step 78



- Use a pair of tweezers to grip the left ribbon cable as close as possible to its contacts and pull the ribbon cable out of the ZIF connector.

Step 79



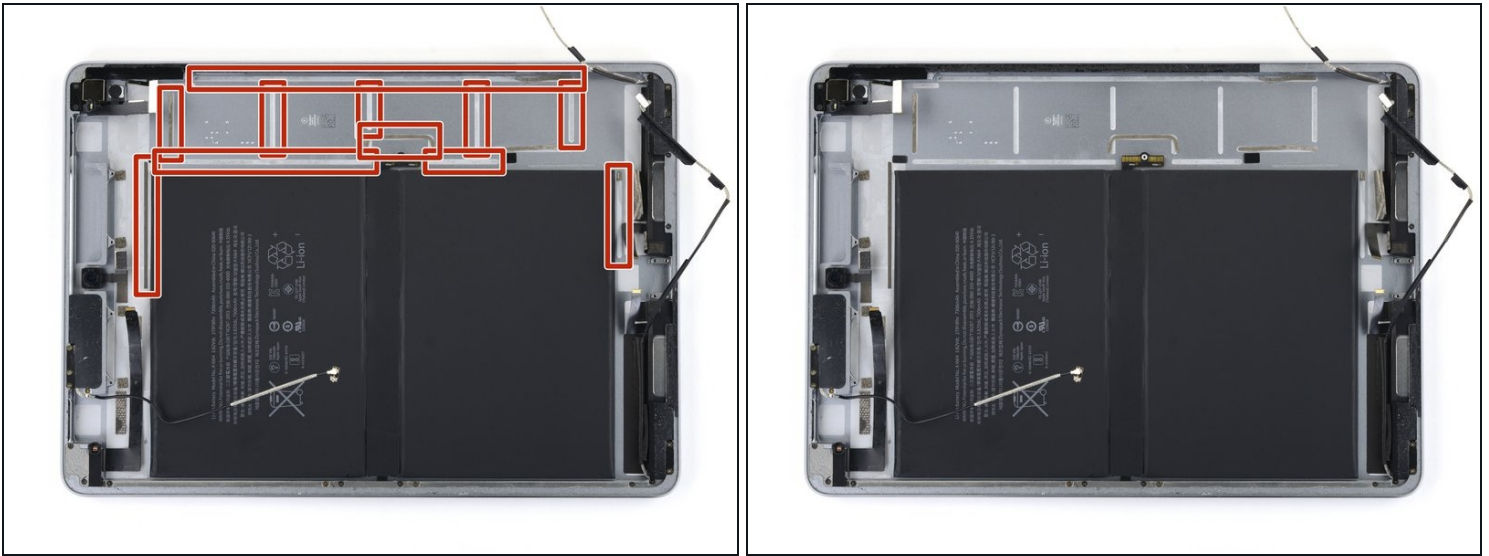
- Use a pair of tweezers to grip the right ribbon cable as close as possible to its contacts and pull the ribbon cable out of the ZIF connector.

Step 80 — Remove the Lightning port screws



- Remove the four Phillips screws securing the Lightning port:
 - Two 2.5 mm screws
 - Two 1.5 mm screws

Step 81 — Logic board adhesive information



i This image shows the device with the logic board removed.

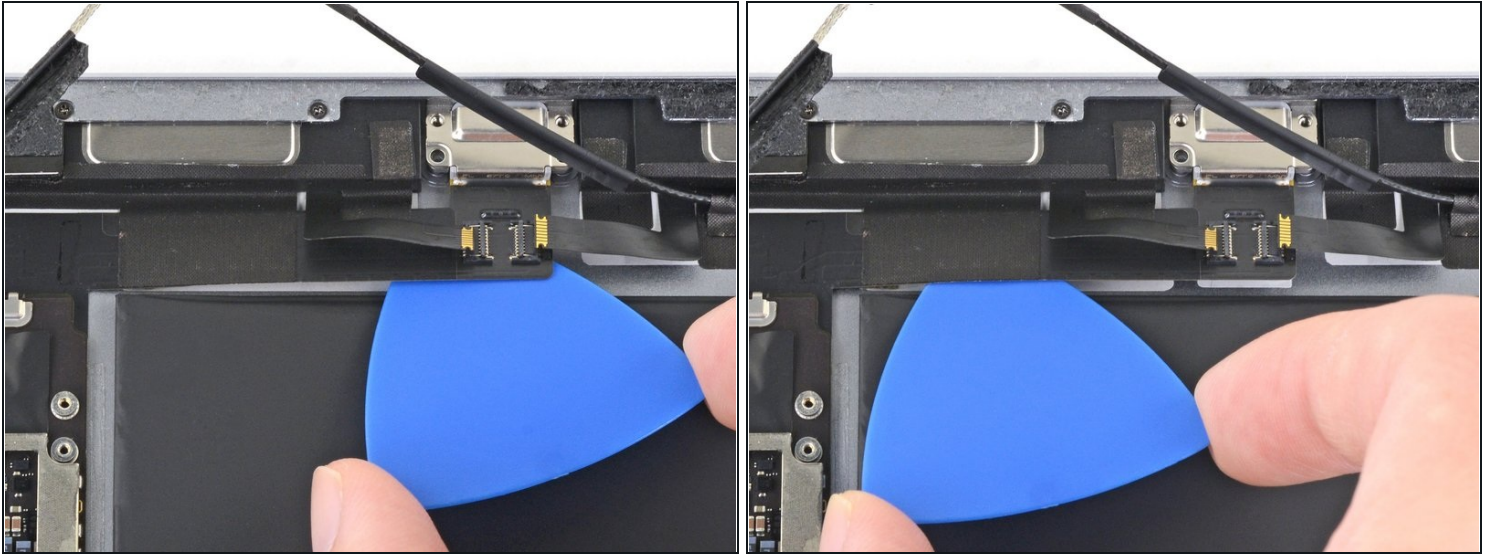
- Strips of adhesive secure the logic board to the frame. In the next steps, you'll weaken and cut through the adhesive to detach the logic board from the frame.

Step 82 — Apply an iOpener to the rear case



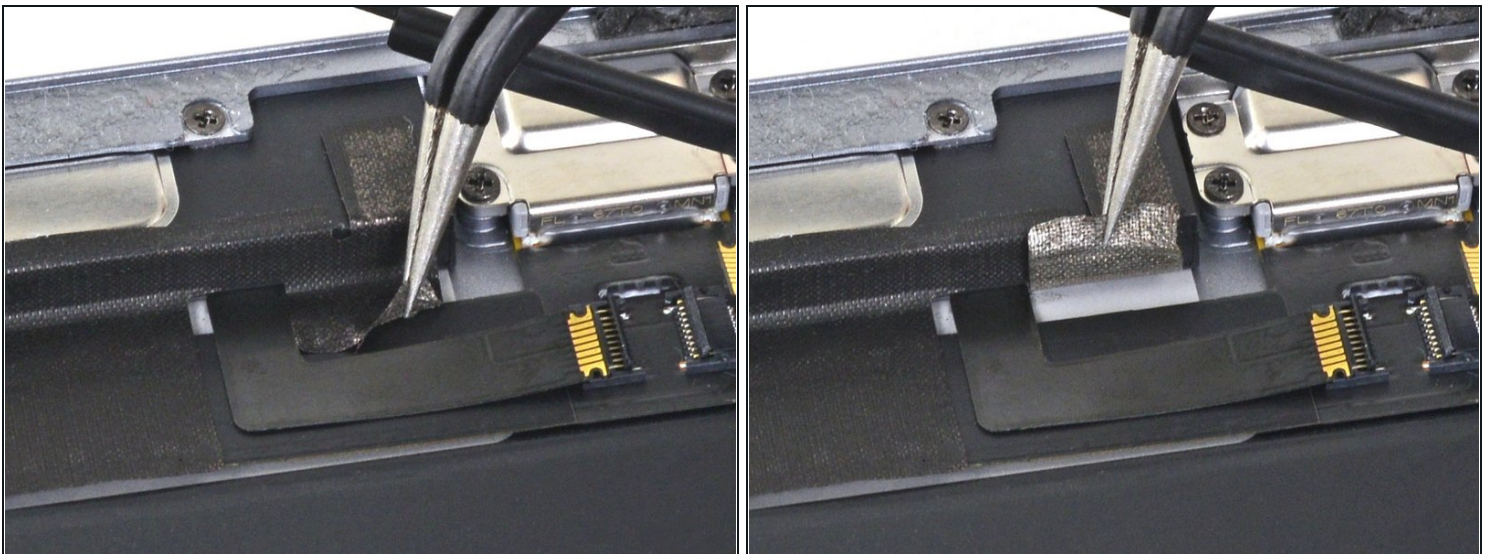
- Carefully turn the iPad over.
⚠ Many cables are loose at this point. Make sure no cables are bent or torn while turning the iPad over.
- [Heat an iOpener](#) and apply it to the top, left, and bottom edges of the rear case for one minute on each edge.

Step 83 — Detach the Lightning port ribbon cable



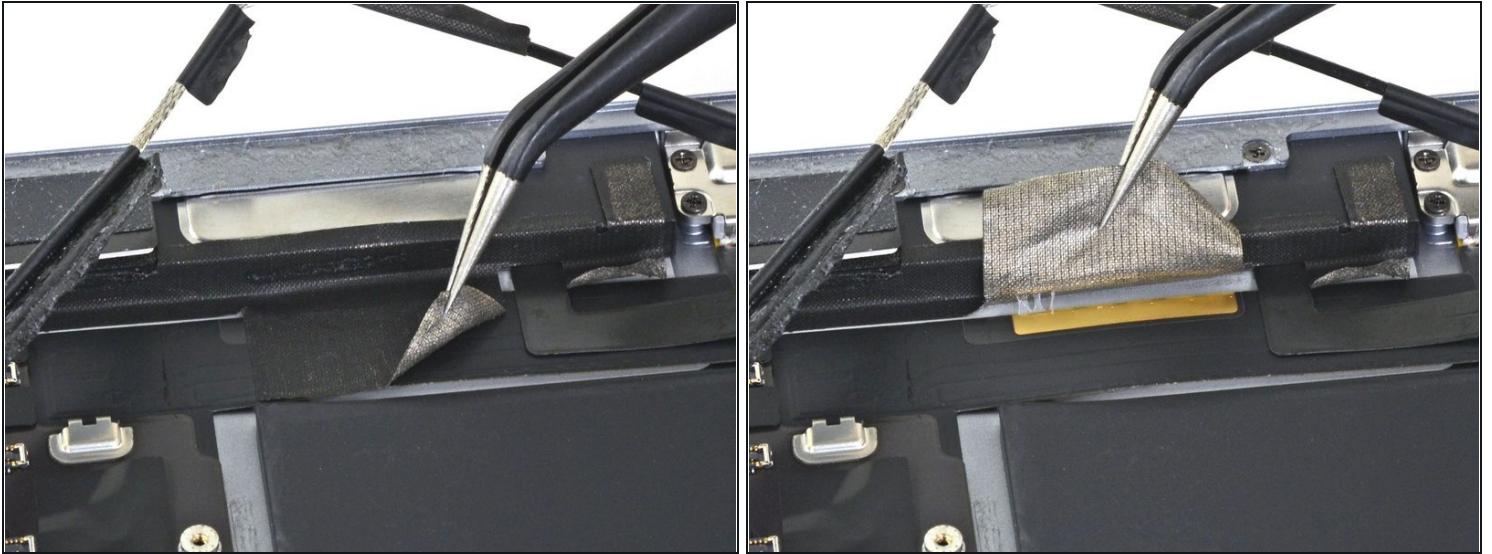
- Use an opening pick to cut through the adhesive under the Lightning port ribbon cable to detach it from the frame.

Step 84 — Lift up the stickers



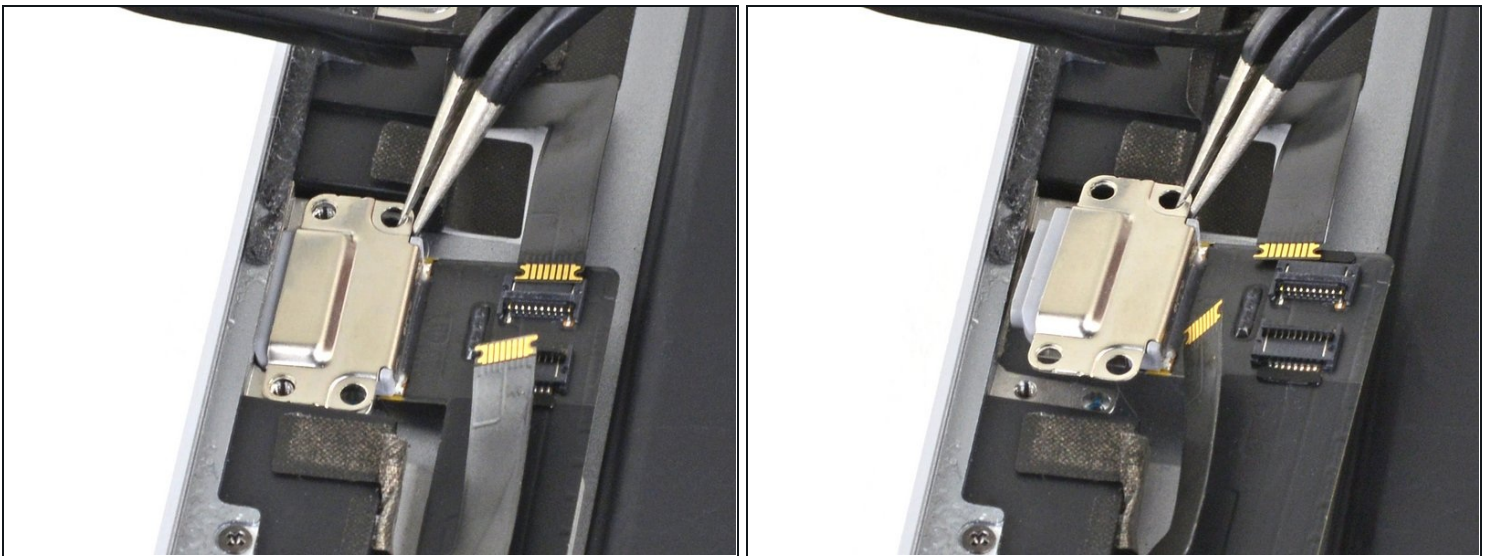
- Use a pair of tweezers to lift up the smaller sticker to the left of the Lightning port (when the Lightning port is oriented up).

Step 85



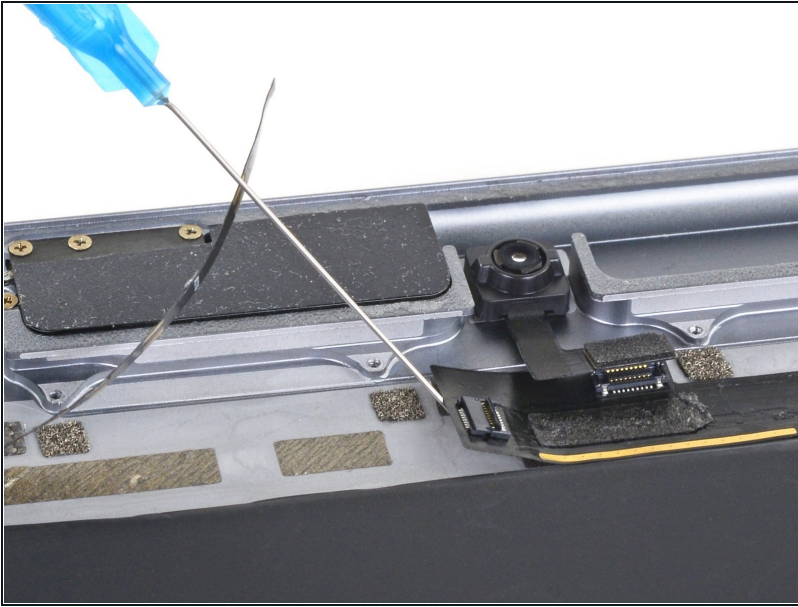
- Use a pair of tweezers to lift up the larger sticker to the left of the Lightning port.

Step 86 — Pull the Lightning port out



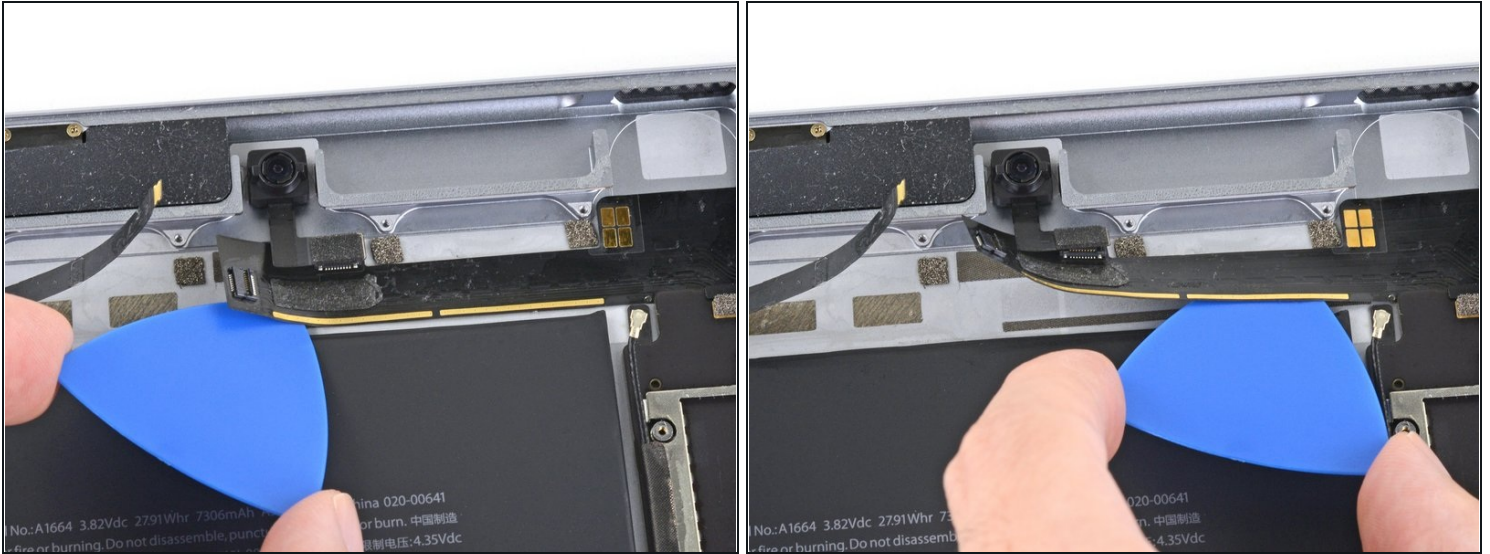
- Use a pair of tweezers to grip the Lightning port by the bottom right screw hole.
- Pull the Lightning port out of its recess.

Step 87 — Apply isopropyl alcohol



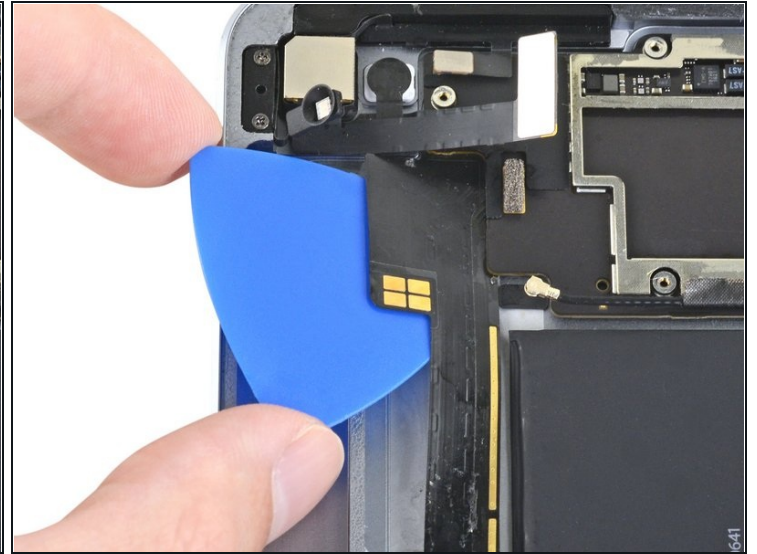
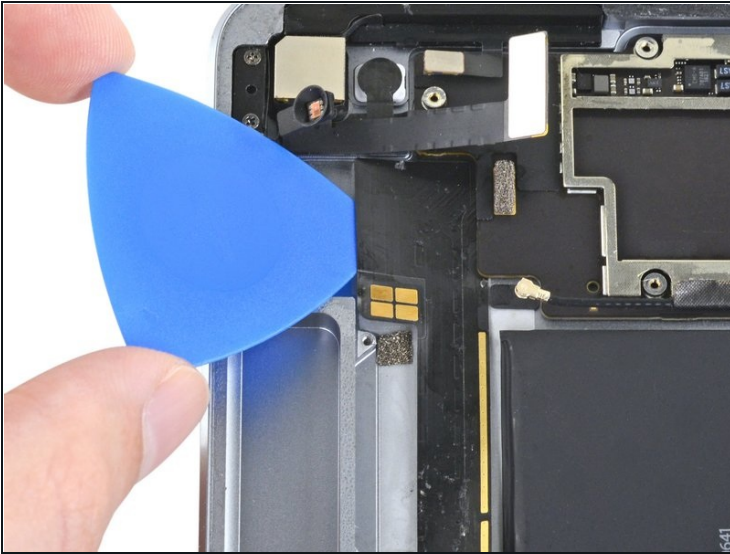
- Apply a few drops of high-concentration isopropyl alcohol under the left edge of the upper logic board arm (Lightning port oriented down).
- Wait thirty seconds for the isopropyl alcohol to weaken the adhesive under the upper logic board arm.

Step 88 — Cut through the adhesive under the upper arm



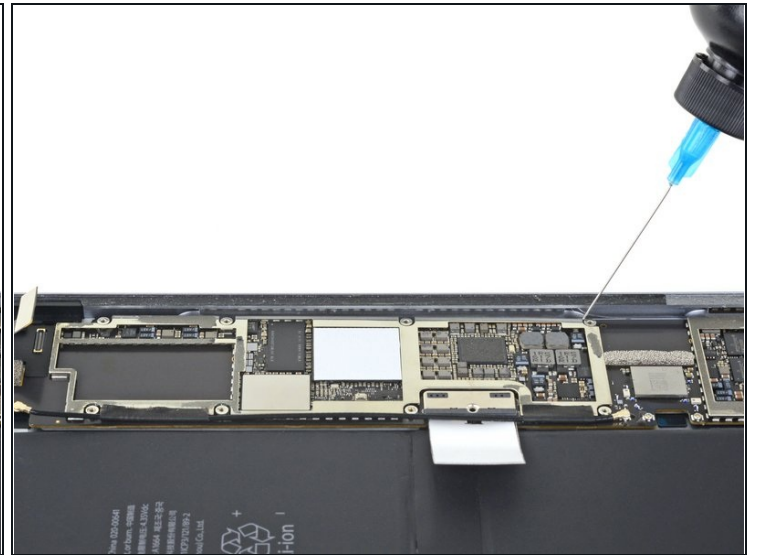
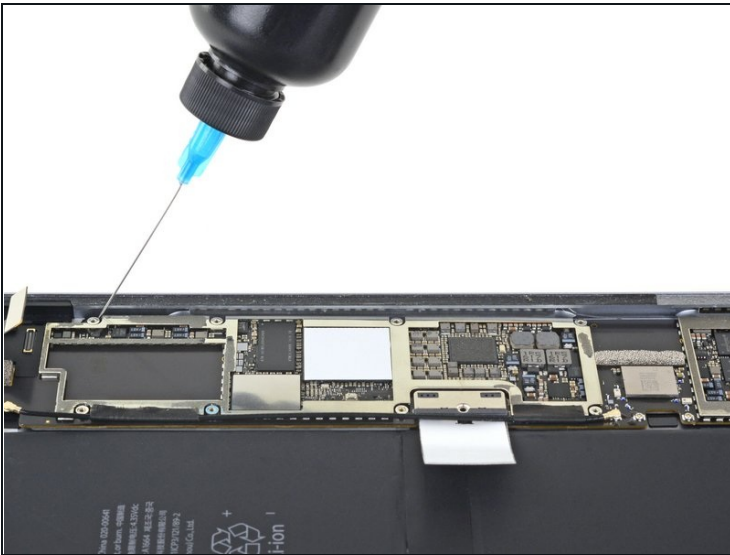
- Use an opening pick to cut through the adhesive under the upper logic board arm and detach it from the frame.
 - ⚠ The upper logic board arm is thin. Be careful not to tear it during this process.
- ① It may help to grip the upper logic board arm with your fingers and peel it away from the frame.
- ① Apply a few more drops of isopropyl alcohol under the logic board arm when it becomes difficult to detach from the frame.

Step 89



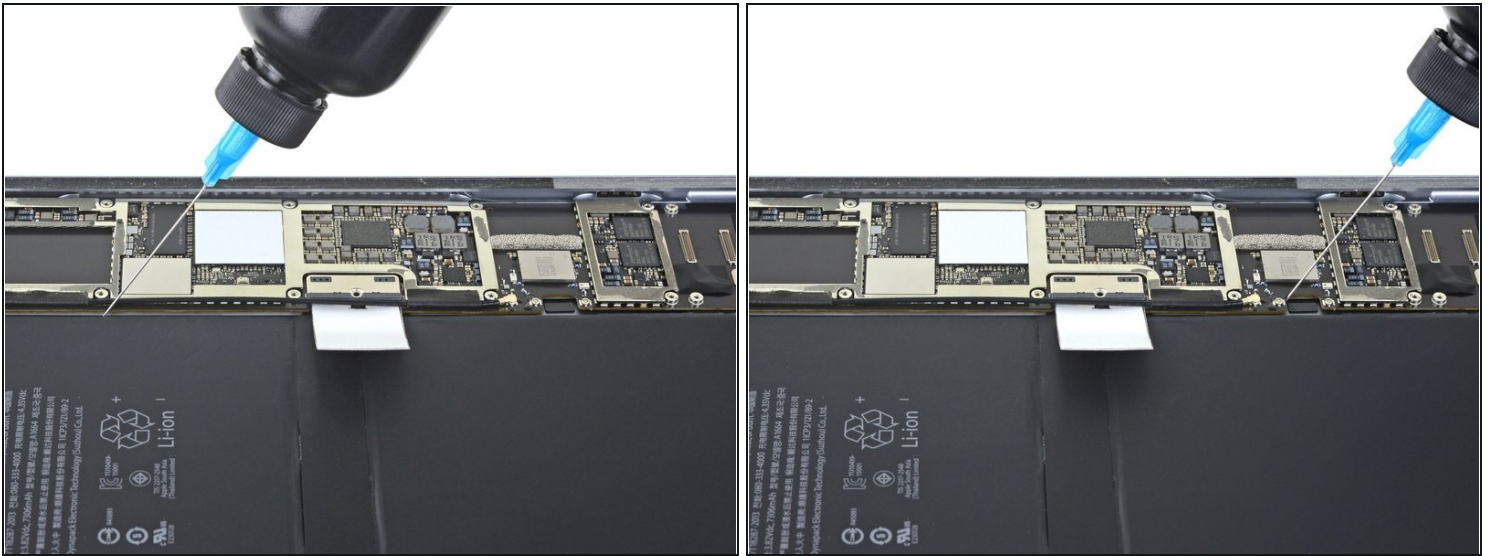
- Insert an opening pick about 0.5 inches (13 mm) under the top edge of the larger portion of the upper logic board arm.
- Leave the opening pick under the upper logic board arm to prevent it from re-adhering to the frame.

Step 90 — Apply isopropyl alcohol



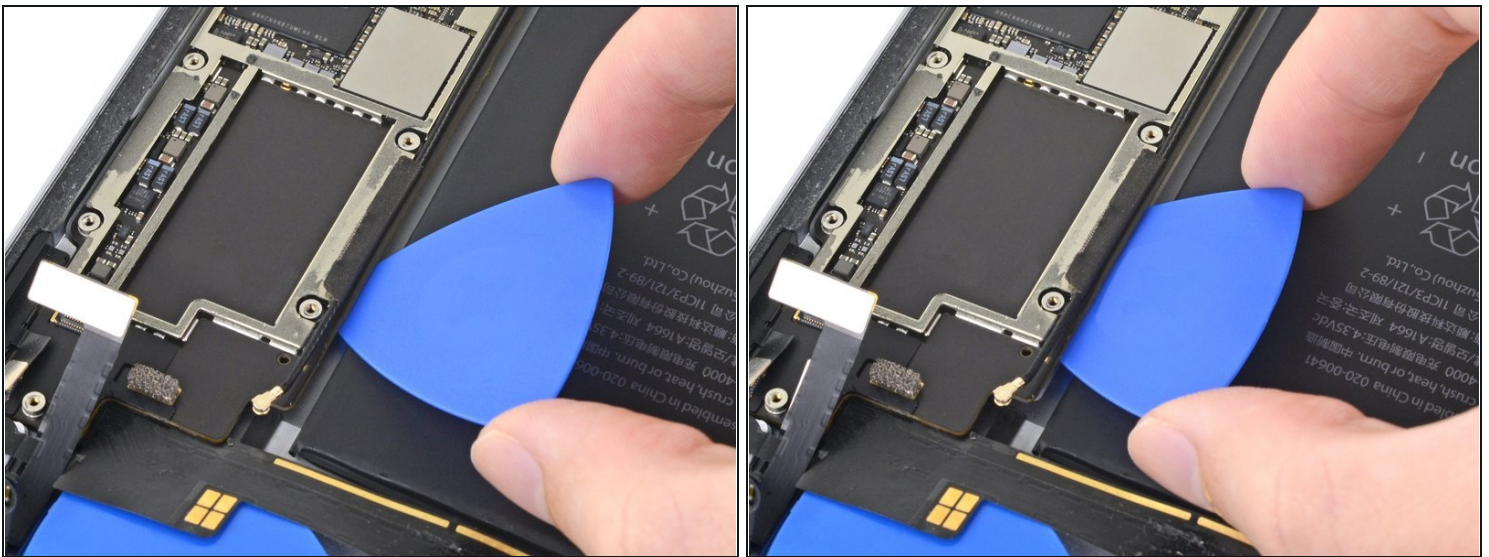
- Apply a few drops of high-concentration isopropyl alcohol to the right edge of the logic board.

Step 91



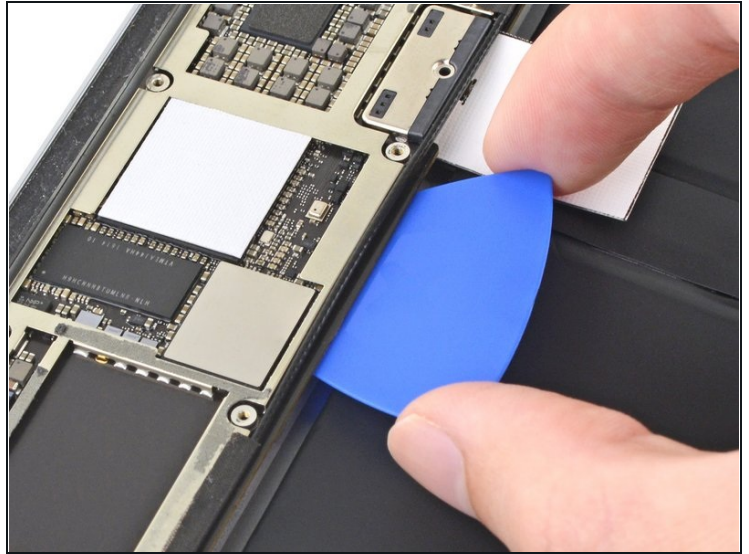
- Apply a few drops of high-concentration isopropyl alcohol to the left edge of the logic board.
- Wait one minute for the isopropyl alcohol to weaken the adhesive under the logic board.

Step 92 — Cut through the adhesive under the logic board



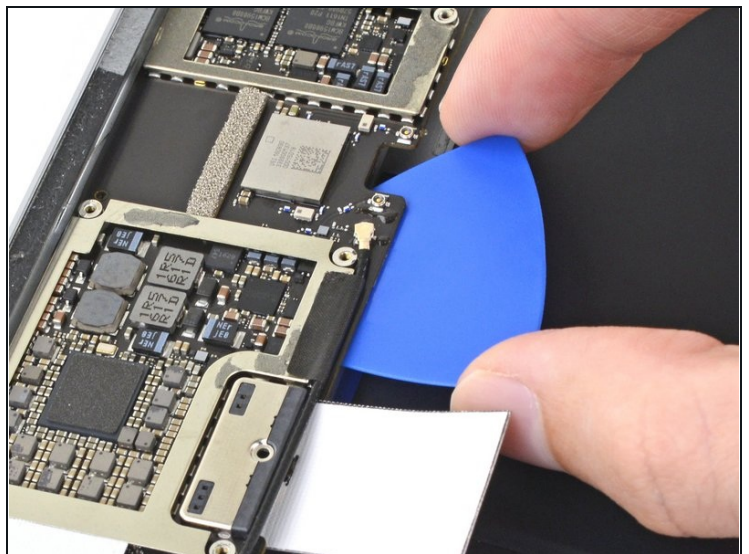
- Slide an opening pick about 0.5 inches (13 mm) under the top of the logic board's left side to cut through the adhesive.
- Remove the opening pick.

Step 93



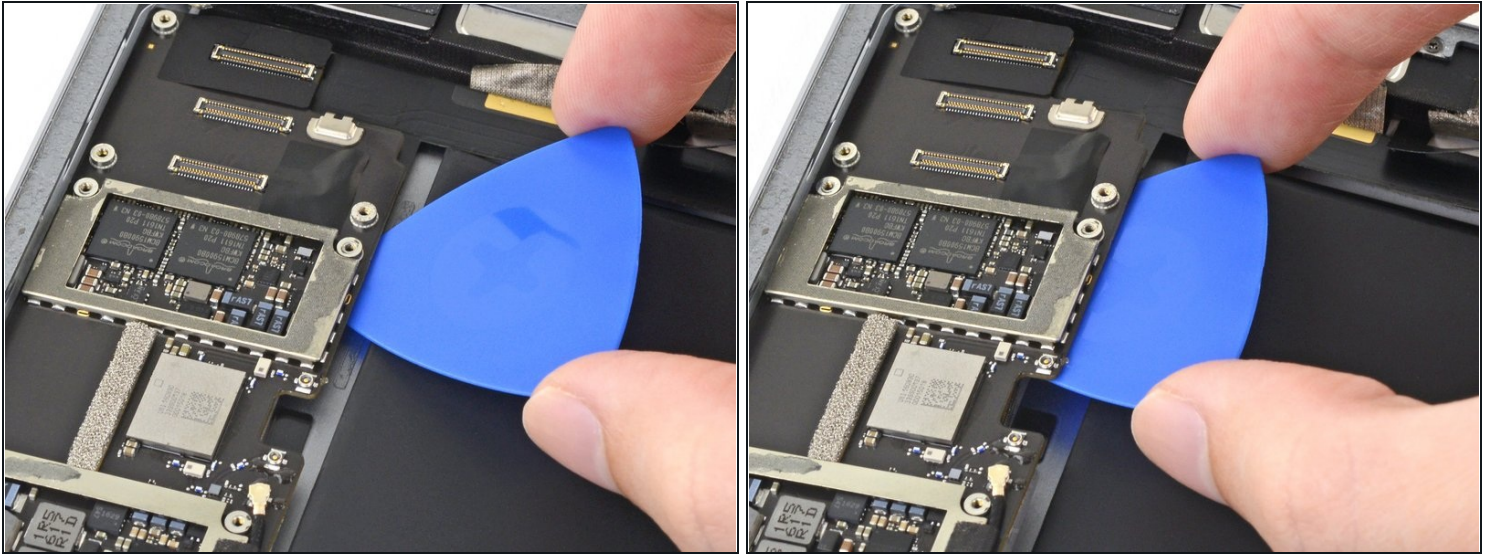
- Slide the opening pick about 0.5 inches (13 mm) under the logic board's left side next to the battery connector.
- Remove the opening pick.

Step 94



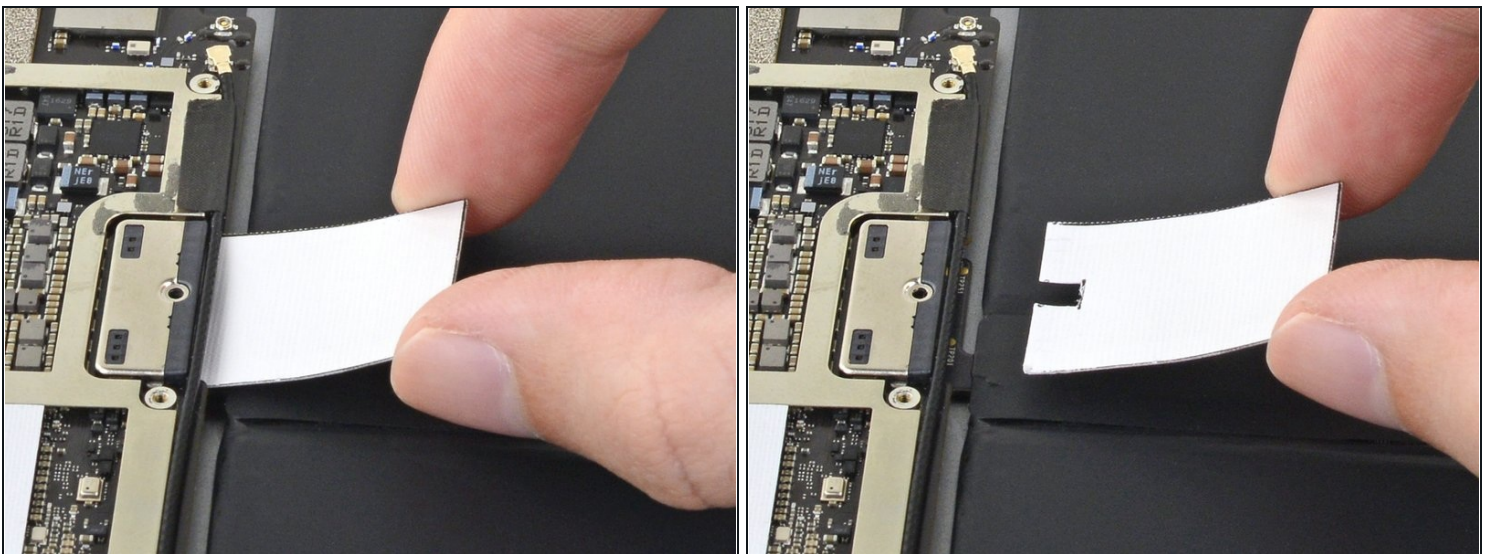
- Slide the opening pick about 0.5 inches (13 mm) under the logic board on the other side of the battery connector.
- Remove the opening pick.

Step 95



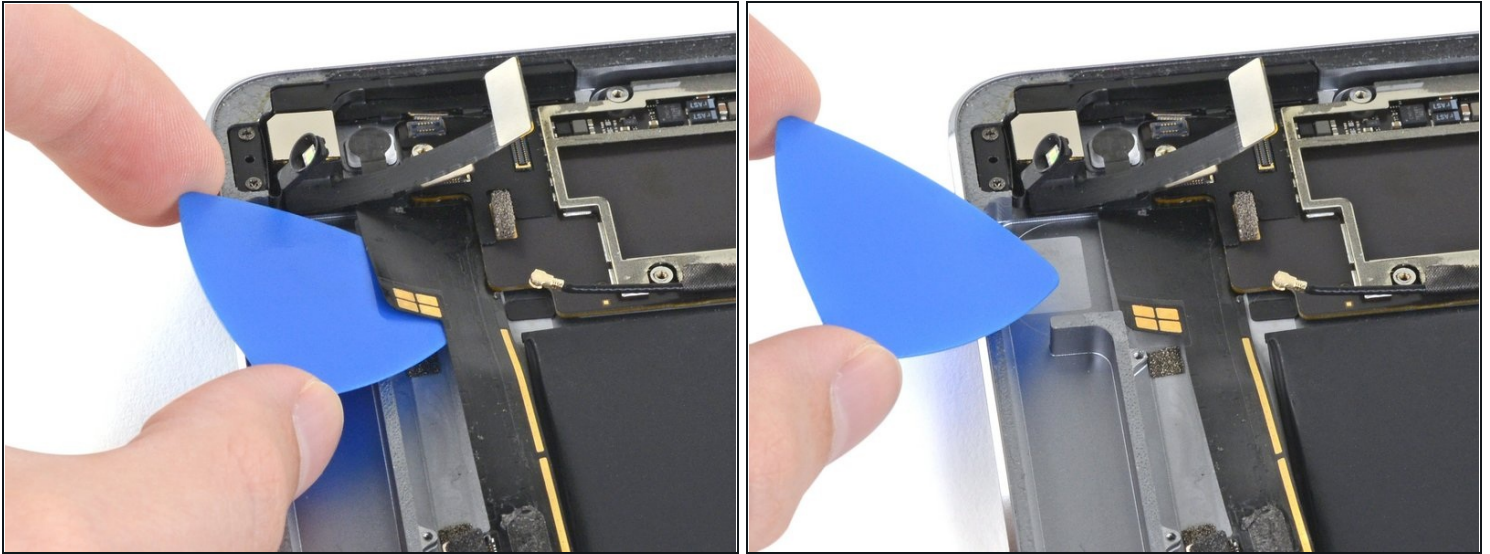
- Slide the opening pick about 0.5 inches (13 mm) under the bottom of the logic board's left side.
- Remove the opening pick.

Step 96 — Remove the battery blocker



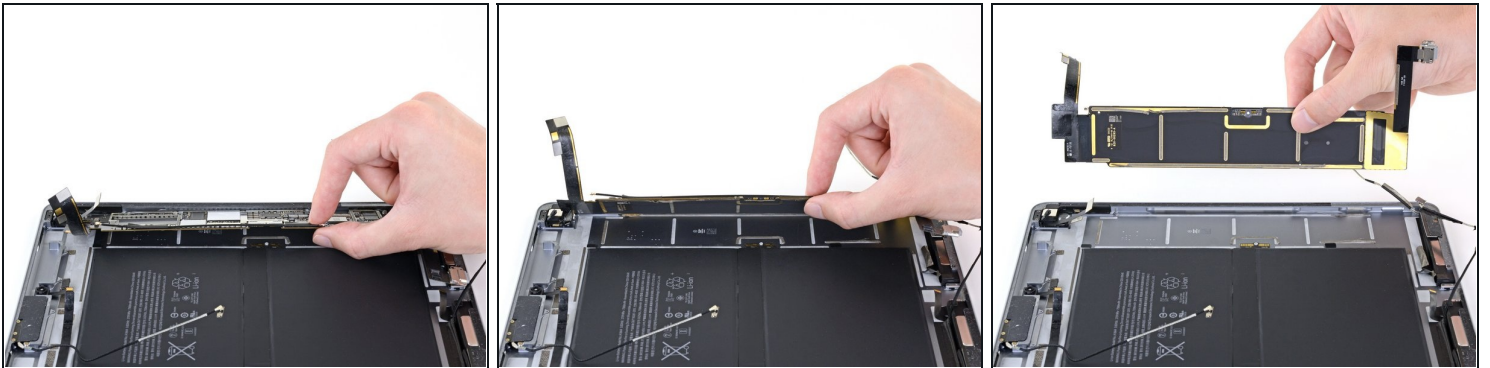
- Remove the battery blocker from the logic board.
- ☒ During reassembly, reinsert the battery blocker after you install the logic board into the device.

Step 97 — Remove the opening pick



- Remove the opening pick from the upper logic board arm.

Step 98 — Remove the logic board



- Remove the logic board from the frame.
 - ❗ If the logic board doesn't easily lift out of the frame, apply a few more drops of isopropyl alcohol to any stuck areas and use an opening pick to cut through more of the adhesive.
- ☑ If there's any alcohol solution remaining in the device, carefully wipe it off or allow it to air dry before installing your logic board.
- ☑ During reassembly, [follow this guide](#) if you are using a pre-cut adhesive card to secure the logic board to the frame.

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 installing.

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

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 [iPad Pro 9.7" Answers community](#) for help.