



# iPad Pro 10.5" Battery Replacement

Use this guide to remove and replace the...

Written By: Dominik Schnabelrauch



# INTRODUCTION

Use this guide to remove and replace the battery for the iPad Pro 10.5”.

Because there are steps in this guide where the battery may remain connected to the logic board, leave the iPad on until the battery is **completely discharged** (the iPad turns itself off) before attempting this guide. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured.

Have plenty of high concentration (>90%) isopropyl alcohol to help make the removal and residue cleanup easier.

If your battery is swollen, [take appropriate precautions](#).

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## TOOLS:

- Anti-Clamp (1)
- iFixit Adhesive Remover (1)
- Phillips #00 Screwdriver (1)
- Suction Handle (1)
- iFixit Opening Picks (Set of 6) (1)
- Battery Blocker (1)
- SIM Card Eject Tool (1)
- iOpener (1)
- Tweezers (1)
- Spudger (1)
- Halberd Spudger (1)
- Isopropyl Alcohol (1)
- Nitrile Gloves 200 Box (1)
- Safety Glasses (1)
- Plastic Cards (1)

## PARTS:

- iPad Pro 10.5" Adhesive Strips (1)
- iPad Pro 10.5" Battery (1)

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## Step 1 — Prepare an iOpener



- ① Strong adhesive holds the screen in place. In order to separate it, you'll first need to heat and soften the adhesive using an iOpener, hair dryer, or heat gun.
- You may need to reapply heat repeatedly throughout this process to prevent the adhesive from cooling and hardening.
- [Prepare an iOpener](#) and place it on the bottom edge of the iPad's screen for about two minutes.

## Step 2 — Create an opening gap



- ① If your iPad's screen is badly cracked, wear skin and eye protection. Cover the screen with a smooth layer of clear packing tape to contain glass shards and help the suction cup adhere. Alternatively, use a strong piece of tape (such as duct tape) and [fold it into a handle](#).
- Place a suction cup next to the iPad's home button 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.
- ① If you want to use the [Anti-Clamp](#), a tool we designed to make the opening procedure easier, follow [this guide](#).
- Firmly pull up on the suction cup to create a small gap between the front panel and the rear case.
  - ⚠ **Don't pull too hard, or you may shatter the glass. If necessary, apply more heat to further soften the adhesive.**
- Once you've opened a sufficient gap, insert an opening pick into the gap.

### Step 3 — Slice through the bottom adhesive



- Slice through the adhesive under the screen by sliding the pick along the edge of the display, towards the bottom left corner.
- Leave the pick in place temporarily to prevent the adhesive from re-sealing.

## Step 4 — Slice through the left adhesive



- Apply heat to the left edge of the iPad for about two minutes, or until it's slightly too hot to touch comfortably.
- If necessary, re-heat your iOpener for a few seconds or until it's a bit too hot to touch. Be careful not to overheat the iOpener, or it may burst.
- Insert a second opening pick at the bottom left corner of the iPad.
- Slide the second opening pick along the left side of the display to separate the adhesive underneath.
- Leave the opening pick inserted near the top left corner of the iPad to prevent the adhesive from re-sealing.

## Step 5



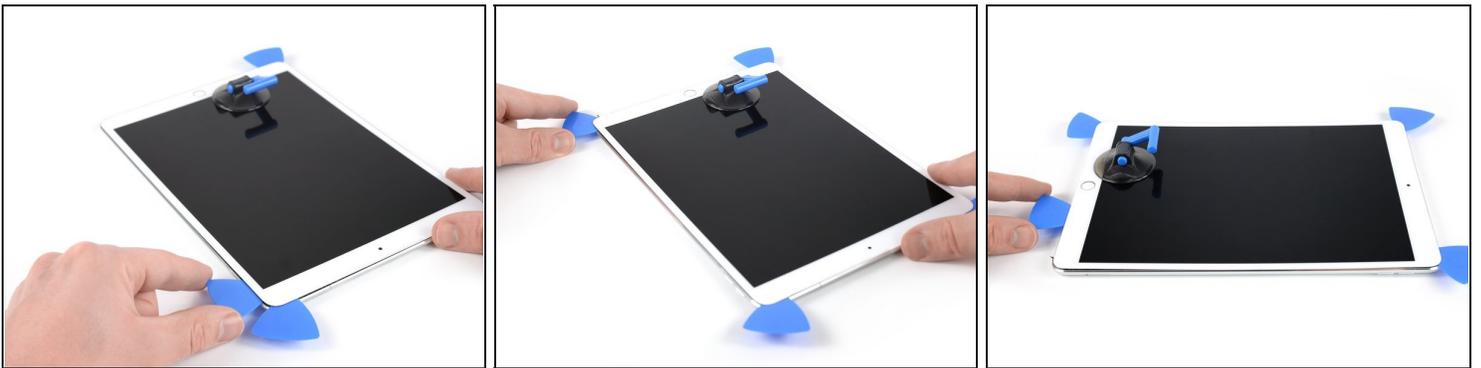
- Apply heat to the top edge of the iPad for about two minutes, or until it's slightly too hot to touch comfortably.

## Step 6



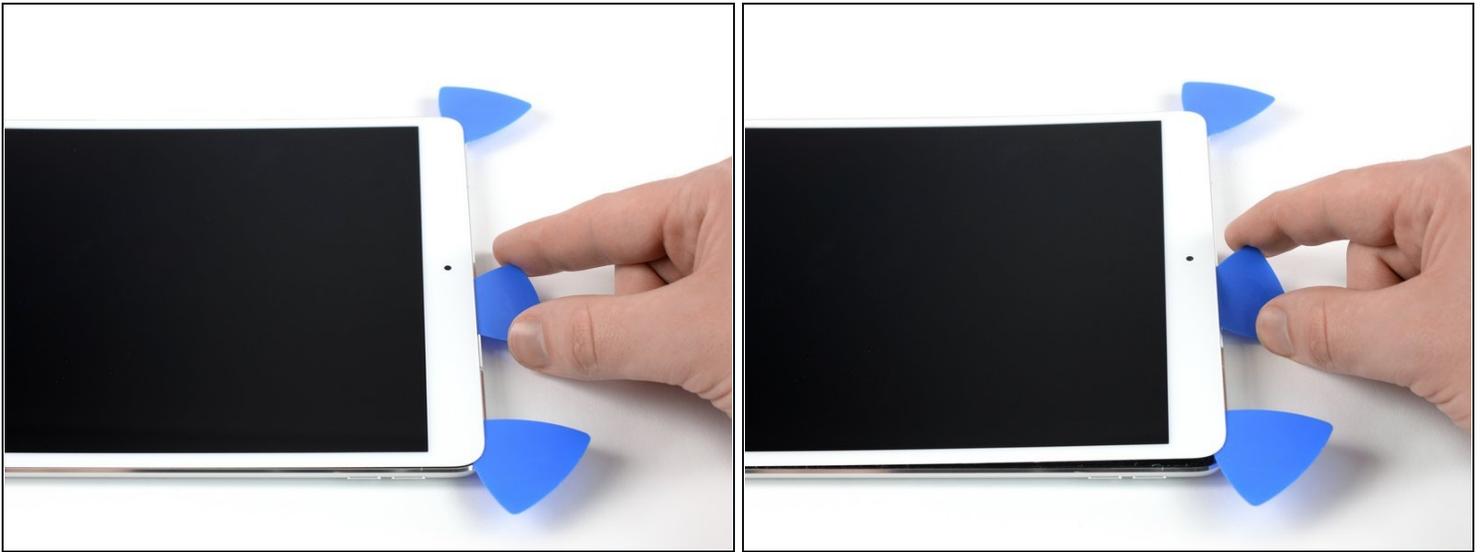
- Insert a third opening pick at the top left corner of the iPad.
- Use the opening pick to cut the adhesive under the top edge of the iPad by sliding it to the top right corner.  
**⚠ The front-facing camera is located right in the center of the iPad's top edge and can be damaged if the pick is inserted too far. Only insert the tip of the opening pick when cutting near the camera.**

## Step 7



- Apply heat to the final, right edge of the iPad for about two minutes, or until it's slightly too hot to touch comfortably.
- Insert a fourth opening pick at the top right corner of the iPad.
- Slide the opening pick down to the bottom right corner to cut the adhesive.
- Slide the opening pick around the bottom right corner—pausing to apply more heat if needed—and cut the remaining adhesive on the bottom edge, but stop before you reach the home button.

## Step 8

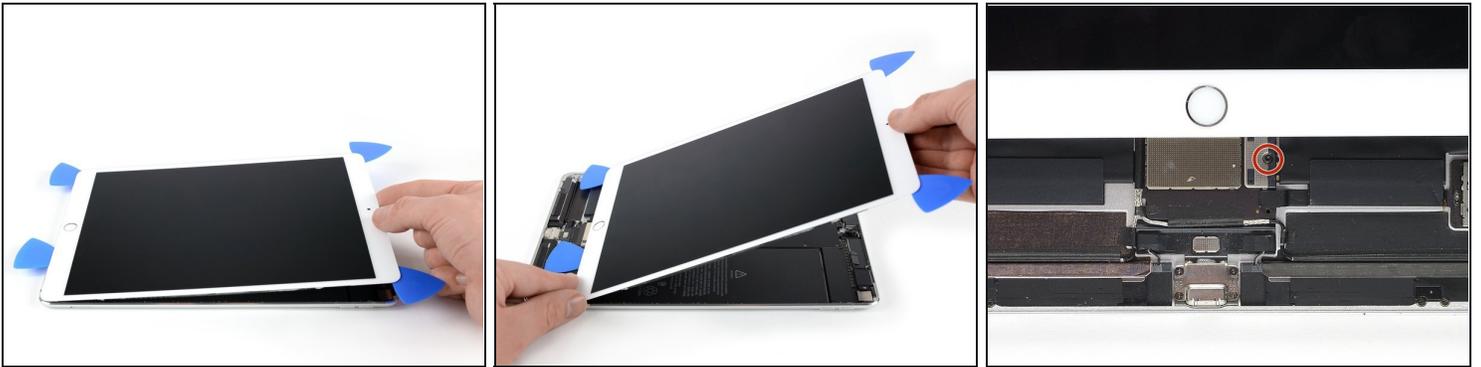


- Insert a fifth opening pick at the top of the iPad near (but not directly on) the front-facing camera.
- Gently twist the pick to separate the display assembly from the iPad.

**⚠ Don't try to remove the display all the way yet! It is still connected to the iPad's motherboard.**

- If needed, apply more heat and/or cut any remaining adhesive that prevents the display from separating.

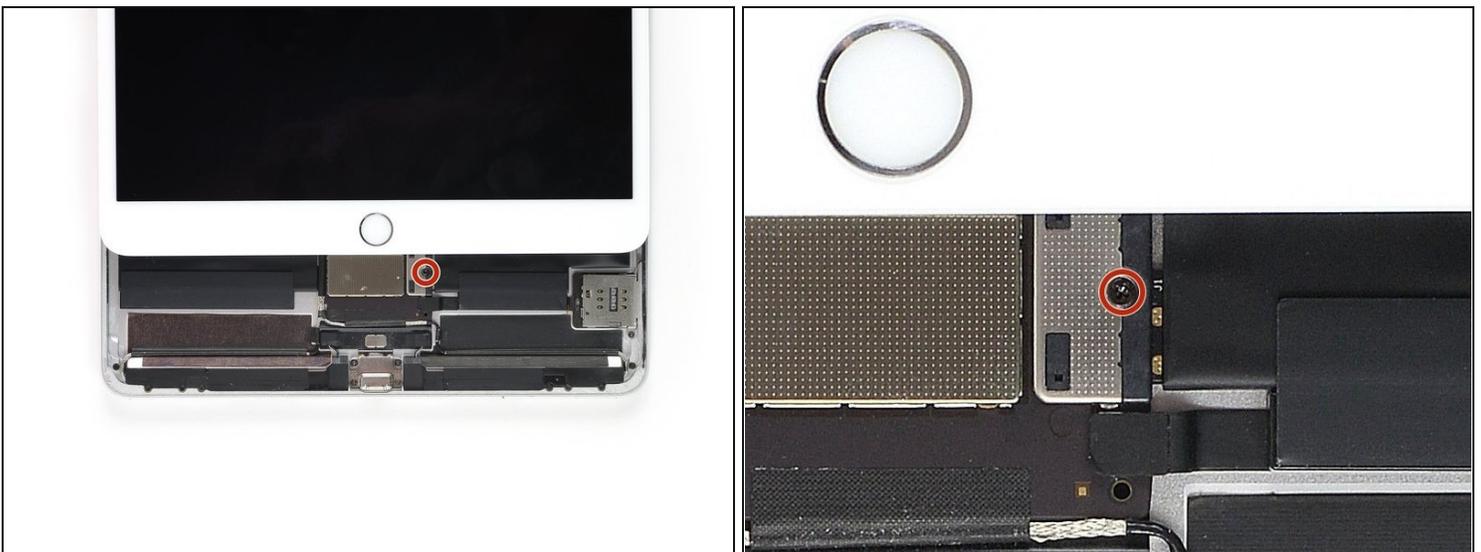
## Step 9



- Lift the display assembly from its top edge and carefully slide it up (towards the front-facing camera and headphone jack), until the screw that secures the battery power connector is revealed at the bottom.

**⚠ Don't lift the display more than 70° or you may damage the attached ribbon cables.**

## Step 10



- Remove the 1.9 mm Phillips screw that secures the battery power connector.
- ⓘ Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from to avoid damaging your device.

## Step 11 — 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.

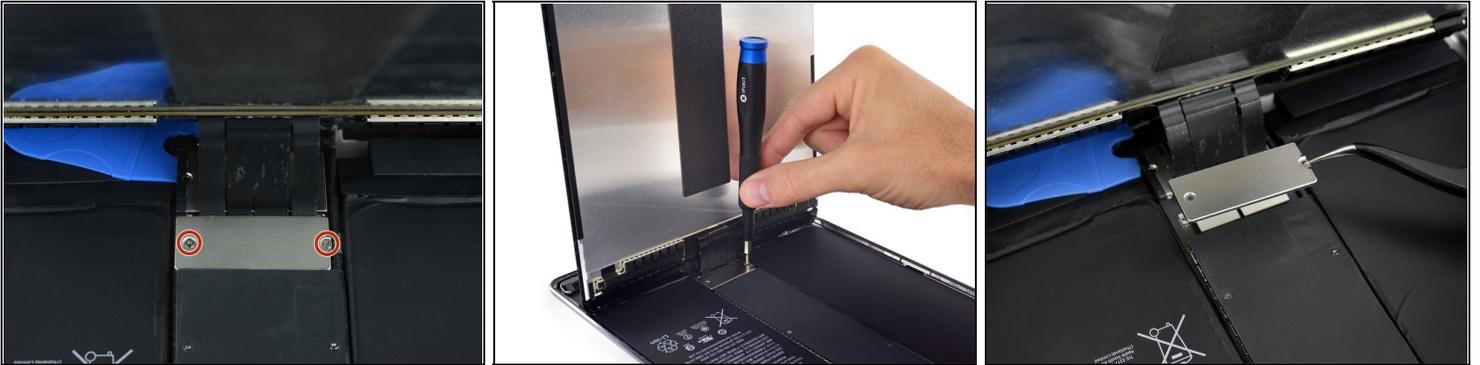
## Step 12 — Disconnect the battery



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

- To disconnect the battery, slide one prong of a battery blocker or the tip of an opening pick under the battery power connector to ensure the power circuit is interrupted.
- ⓘ Don't push the battery blocker underneath the connector with excessive force. If you're having trouble fitting the battery blocker underneath the logic board, you can try [using a playing card](#) to disconnect the battery instead.
- ⓘ The battery blocker or playing card ideally should slide under the logic board without encountering any blockages.
- Leave the battery blocker in place as you work.

## Step 13



- Slowly lift the display from its top edge, being careful not to strain the attached ribbon cables.
- Remove the two 1.3 mm Phillips screws securing the display connector cover bracket.
  - ⓘ You may need to angle the driver slightly in order to avoid straining the ribbon cables.
- Remove the display connector cover bracket.

## Step 14



- Use a spudger to disconnect the two visible display flex connectors by gently prying them straight up from their sockets.
  - ⓘ 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.

## Step 15



① Underneath, you'll find two additional display cable connectors.

- Use your spudger to gently pry them up and disconnect them.

## Step 16



- Remove the display assembly.
  - ☑ During reassembly, before installing a display, remove any remaining adhesive from the iPad, and clean the glued areas with high concentration isopropyl alcohol (90% or greater) and a lint-free cloth. This helps prep the iPad for fresh adhesive and ensures that it will bond properly.
  - ☑ If you plan to reinstall your existing display, remove any remaining adhesive from the back and clean the adhered areas with isopropyl alcohol.
  - ☑ Test your iPad's functions and install [pre-cut adhesive strips](#) to the back of the display using our [display adhesive application guide](#) before sealing it up.

## Step 17 — Front-Facing Camera



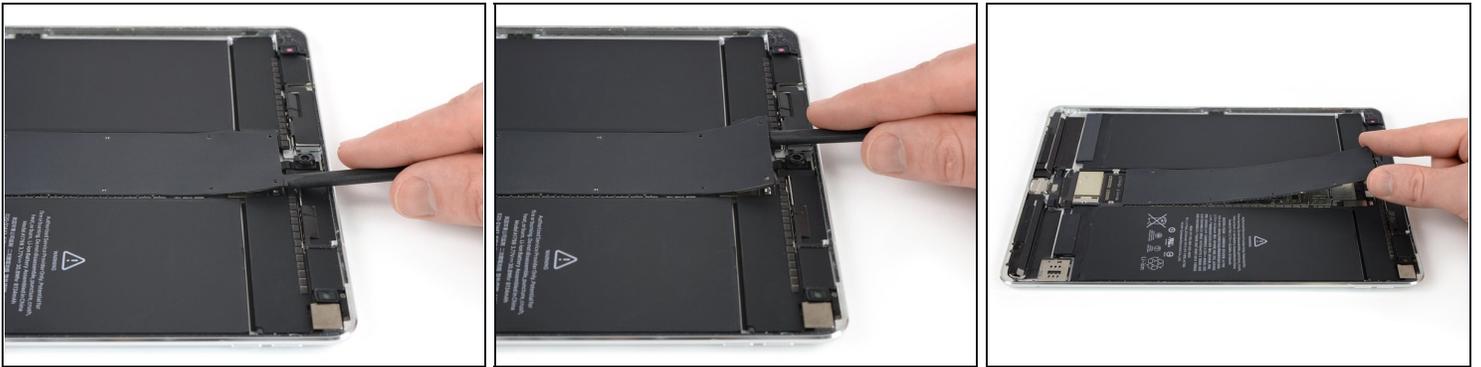
- Use a Phillips screwdriver to remove the ten screws securing the EMI shield:
  - Eight 1.3 mm screws
  - Two slightly longer screws

## Step 18



- Apply a [heated iOpener](#) to the EMI shield to loosen the adhesive beneath. Apply the iOpener for at least two minutes.

## Step 19



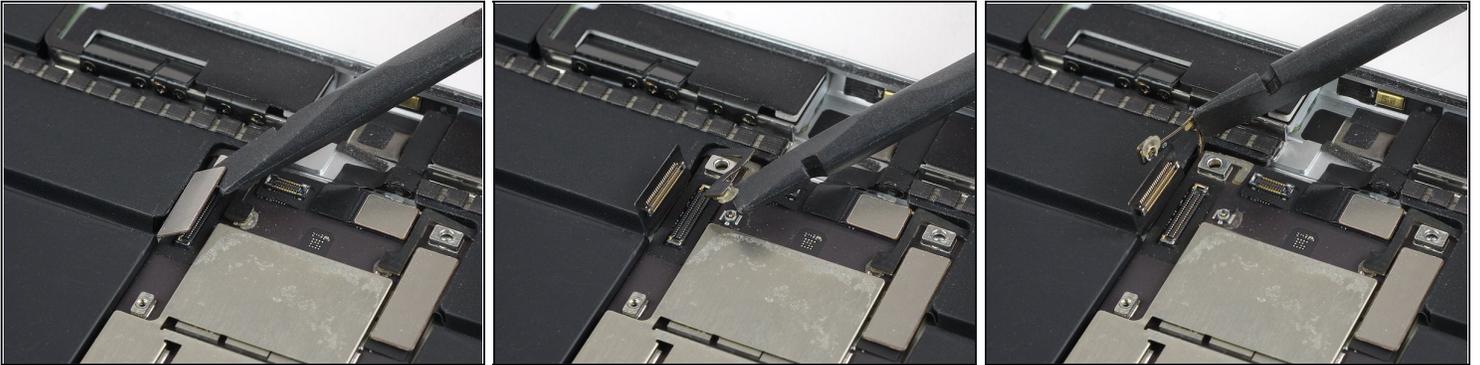
- Use flat end of a spudger to pry up the EMI shield, starting from the top edge near the front-facing camera.
- ① In addition to screws and mild adhesive, the shield is also secured with clips along the outer edges. Try to bend the shield as little as possible when removing it, so you can bend it back to its original shape and re-use it. During reassembly, it should snap back into place once the screws are tightened.
- Continue carefully prying up the EMI shield until you can remove it.

## Step 20



- Use the edge of a spudger to pry up and disconnect the flex cable for the front-facing camera.
- Remove the front-facing camera.

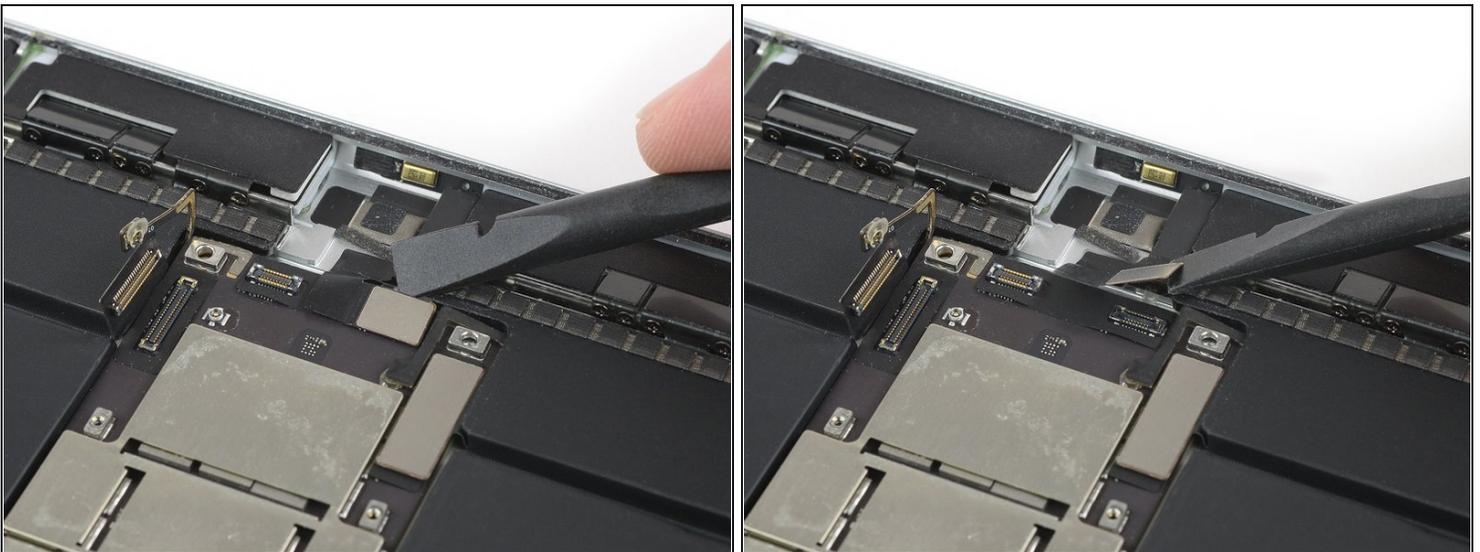
## Step 21 — Battery



- Use the edge of a spudger to pry up and disconnect both the left interconnect cable and antenna cable. Fold them gently out of the way.

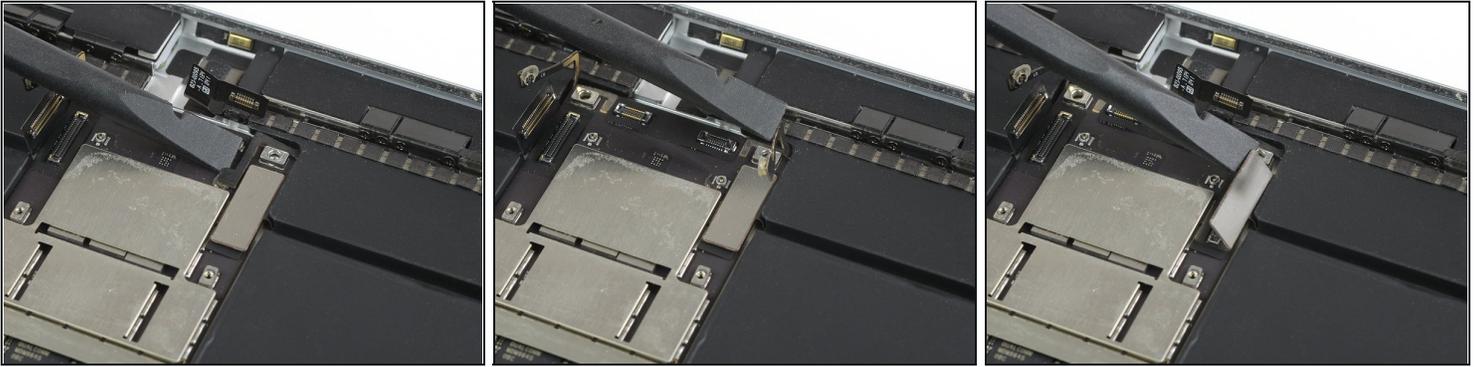
⚠ If either cable is glued to the board, use a little heat to soften the adhesive so you can separate the cable without damage.

## Step 22



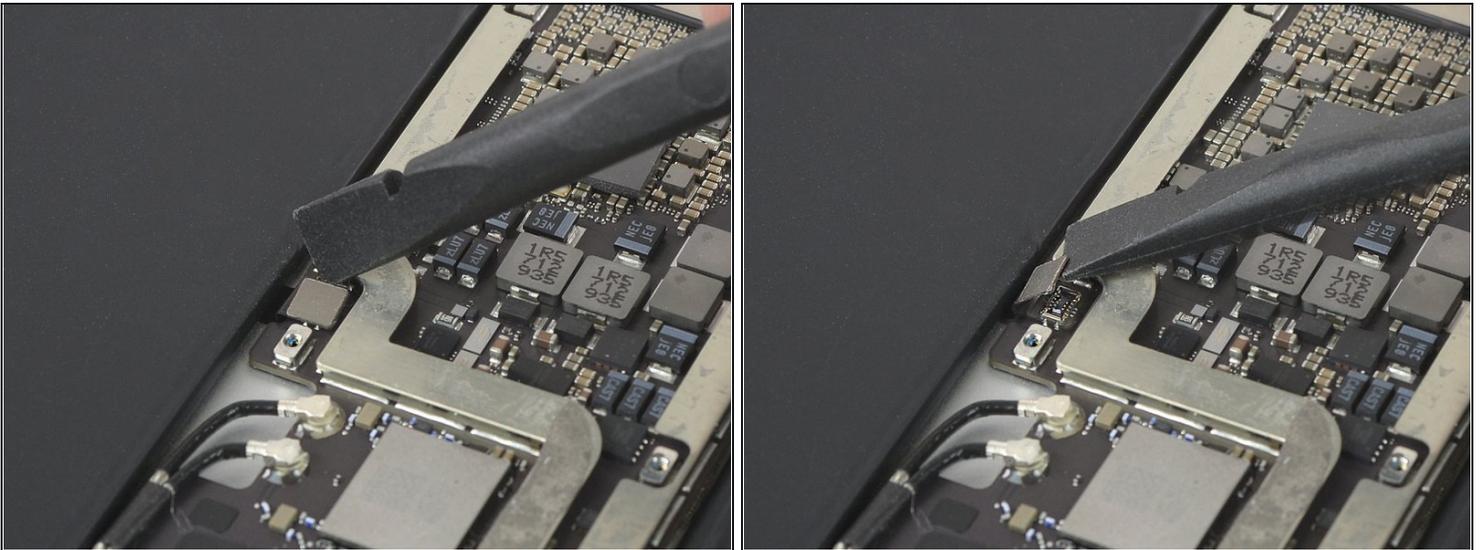
- Use the edge of a spudger to pry up and disconnect the microphone array cable.

## Step 23



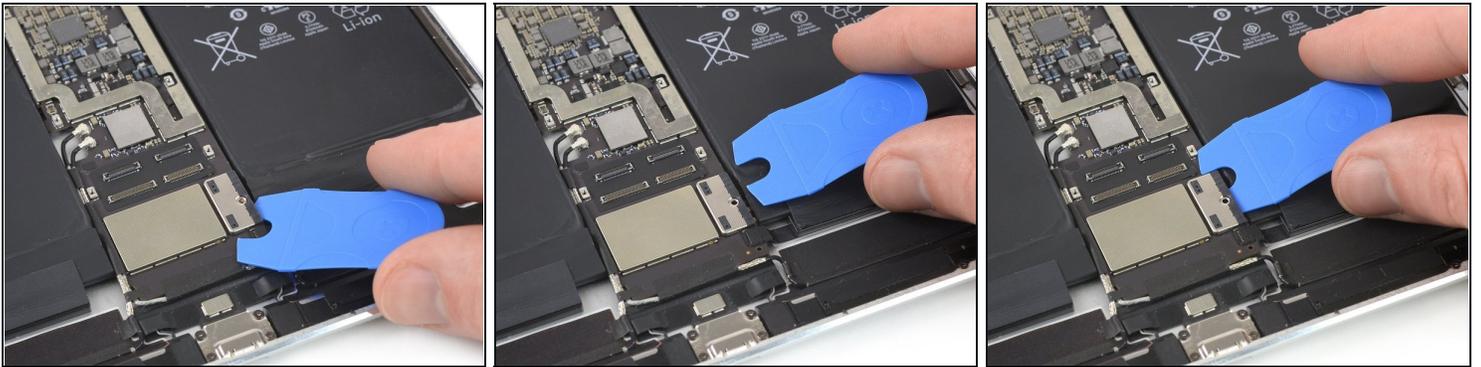
- Use the edge of a spudger to pry up and disconnect both the right interconnect cable and antenna cable, and gently fold them out of the way.

## Step 24



- Use the edge of a spudger to pry up and disconnect the cable for the Smart Connector, and fold it out of the way.

## Step 25

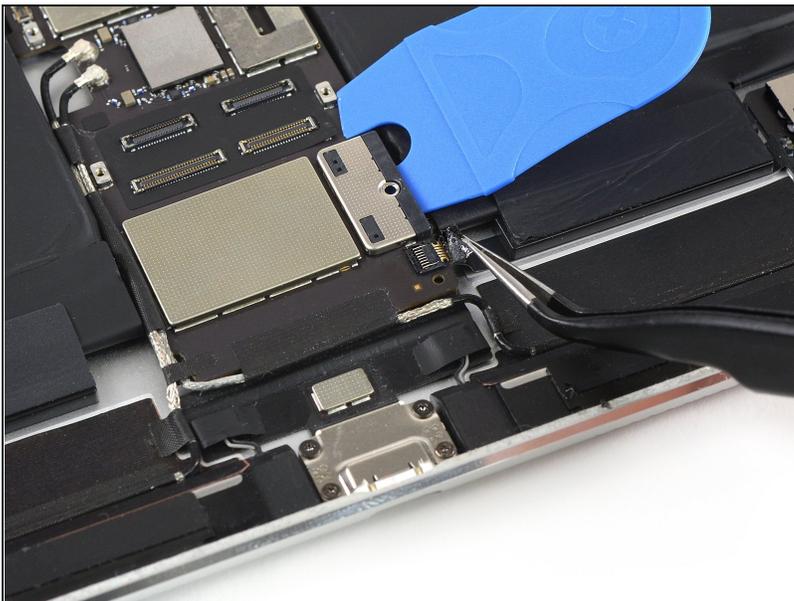


ⓘ For the following steps, you'll need to relocate the Battery Blocker you inserted earlier.

⚠ The battery isolation pick or battery blocker is an outdated way of isolating the battery, as you risk damaging the battery pins underneath the logic board. If you use this method, take extreme care to insert it gently and straight in the direction of the logic board. Do not twist or swing the pick side to side.

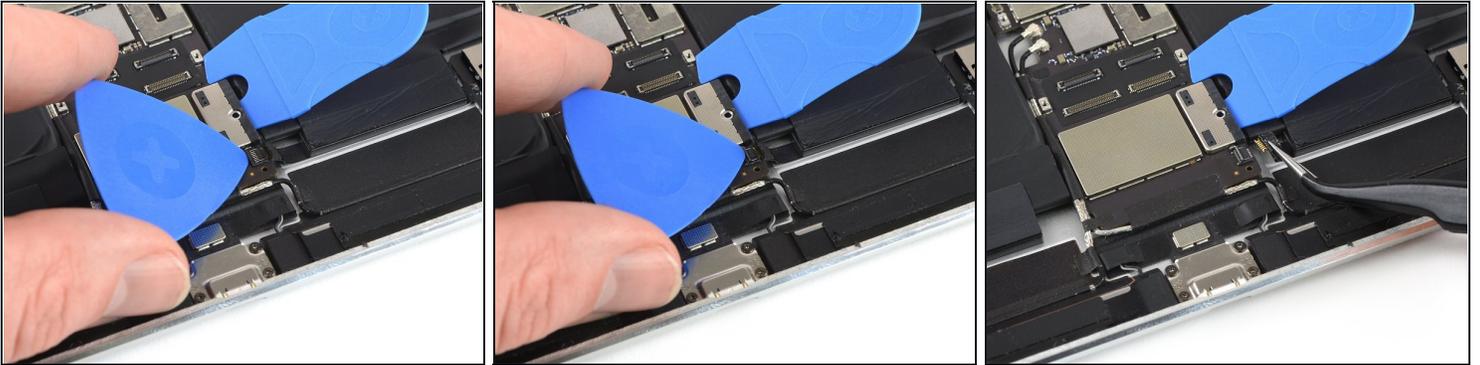
- Remove the Battery Blocker from the battery power connector.
- Slide one side of the Battery Blocker under the battery power connector, and ensure that it doesn't cover the ZIF connector for the SIM card tray flex cable.

## Step 26



- Use a pair of [tweezers](#) to peel off the tape that covers the ZIF connector for the SIM card tray flex cable.

## Step 27



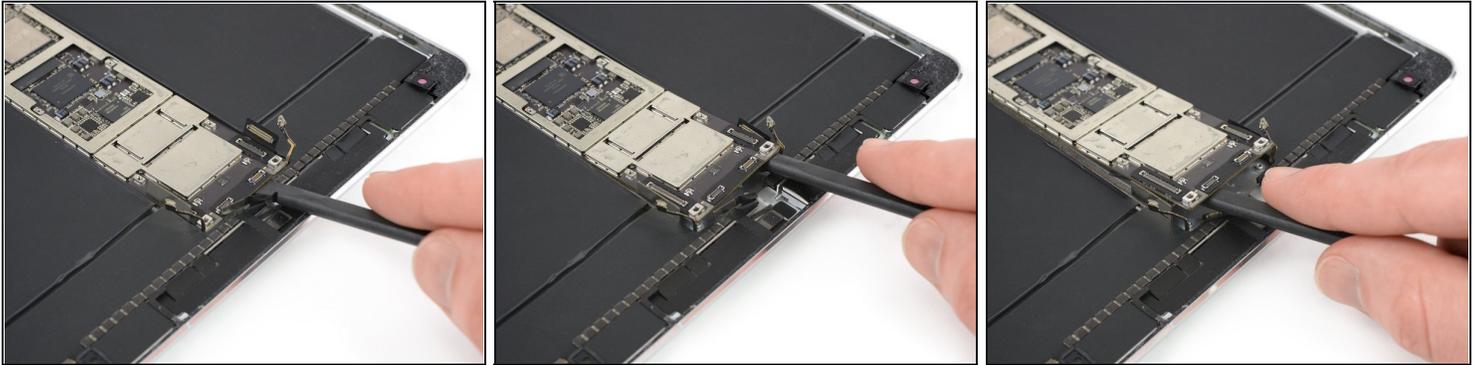
- Use an opening pick to flip up the locking flap on the ZIF connector.
- Use a pair of tweezers to pull out and disconnect the SIM card tray flex cable.

## Step 28



- ⓘ The adhesive that holds down the logic board is very strong. To remove the board, you must first weaken the adhesive using either a solvent, or heat.
- ⚠ Many glue solvents (such as isopropyl alcohol) are flammable, so don't mix these methods.**
- Apply some solvent in a seamless movement along both edges of the logic board. Allow it to penetrate the adhesive for several minutes.

## Step 29

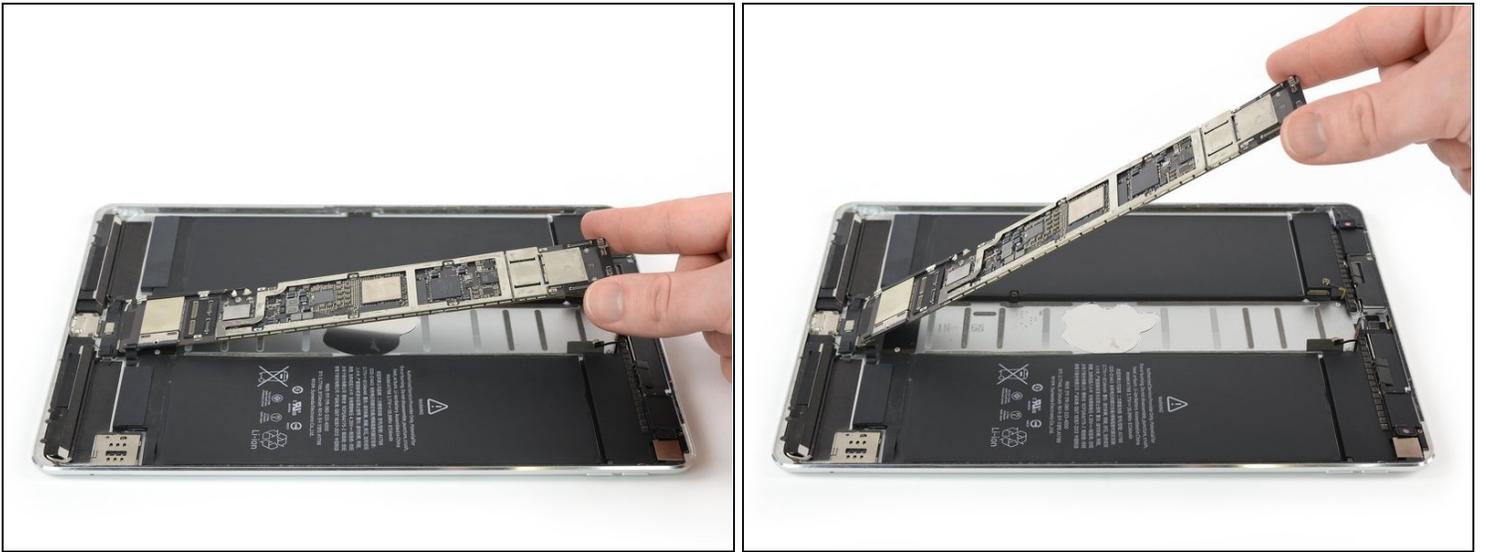


**⚠** In the following steps you'll be very carefully prying up the logic board. The place to lift it is very tight. Avoid damage to the left and right interconnect and antenna cables, by making sure they don't get caught by the logic board when prying it up.

- Insert the flat end of a spudger between the logic board and the rear case of the iPad.
- Use the spudger to slowly pry up the right side of the logic board.
  - ⓘ If the adhesive is too strong to pry up the logic board, apply some additional solvent and give it time to penetrate.
- Pry up the left side of the logic board until you can get a good grip.

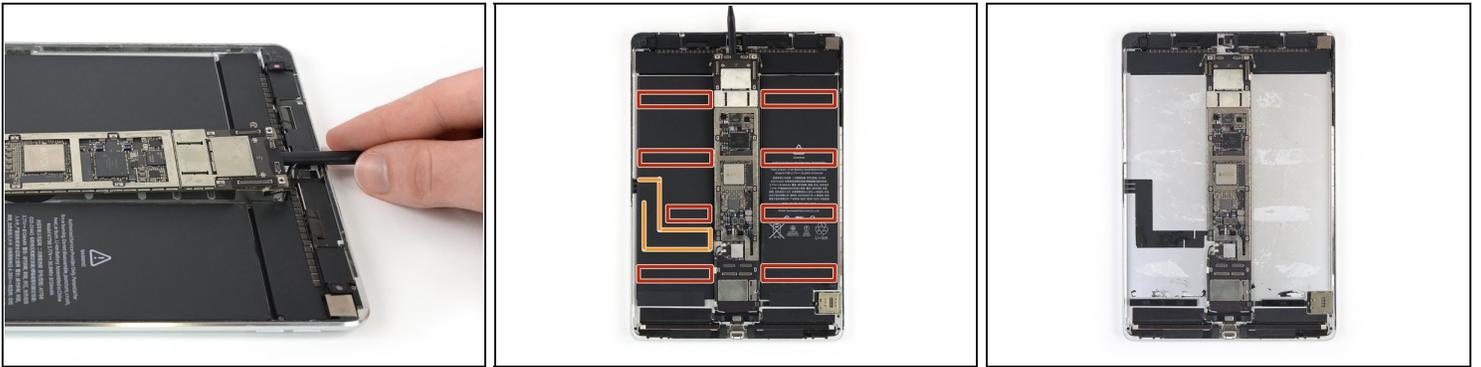
**⚠** Don't try to remove the logic board all the way! It is still connected to the bottom area of the iPad.

## Step 30



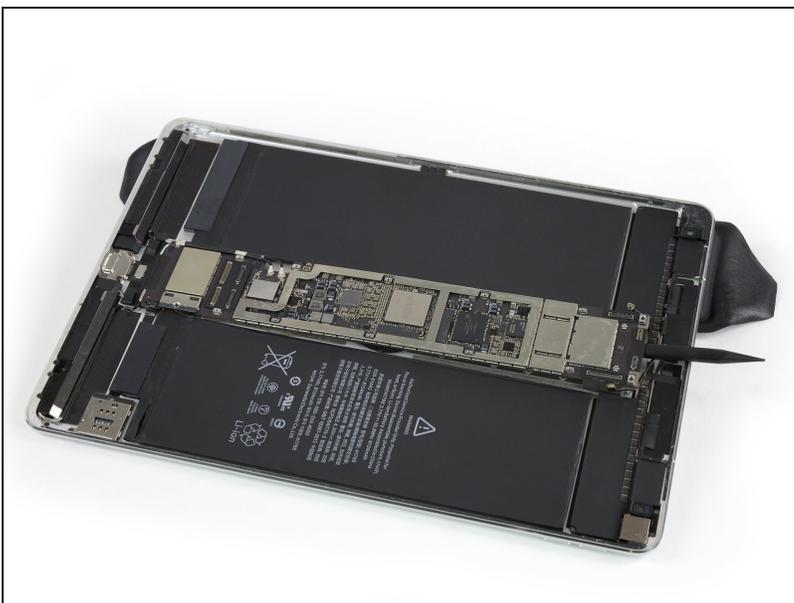
- Lifting from the top edge, swing the logic board upwards to a 45° angle to ensure all adhesive beneath is separated.
- Use a spudger or opening pick to separate any remaining adhesive as needed.

## Step 31



- Set the logic board back down, leaving the spudger underneath to prevent the adhesive from re-sealing.
- ⓘ In the following steps, you'll use a liquid solvent (such as iFixit Adhesive Remover or high-concentration isopropyl alcohol) to weaken the adhesive under the battery. The location of the adhered areas and the Smart Connector flex cable underneath the battery are shown in the last two images:
  - Adhesive
  - Smart Connector cable

## Step 32



- Elevate the left side of the iPad (long edge nearest the headphone jack) by placing an iOpener underneath, so that the iPad lays down at an angle.

## Step 33



**⚠ Do not apply any solvent to the Smart Connector flex cable to avoid it loosening during the battery removal.**

- Apply some solvent underneath the battery at the three separate points where the longer [adhesive strips](#) are located. Only apply the solvent point by point and not in a seamless movement.
- Allow the solvent to penetrate for several minutes to help weaken the adhesive.

## Step 34



- Remove the iOpener so the iPad lays flat, and rotate it so the headphone jack faces towards you.
- Insert a [plastic card](#) underneath the battery cell, starting near the outer corner.
- Wiggle the card from side to side and push it under the battery to separate the adhesive underneath.

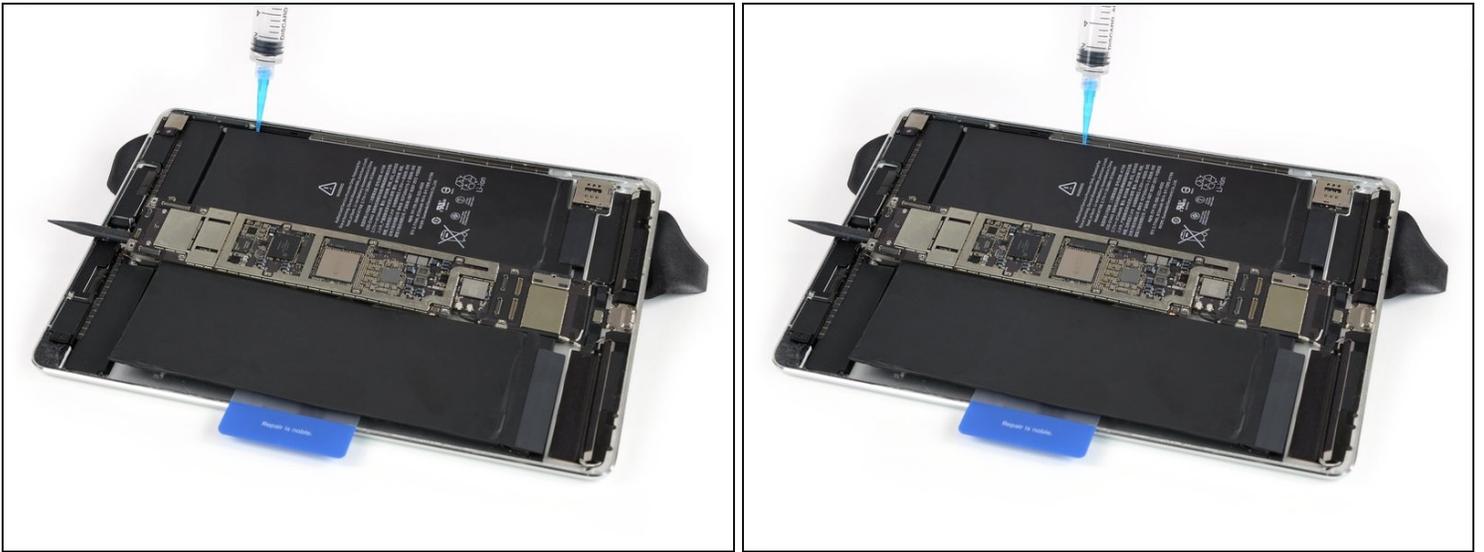
**⚠ Stop before you reach the Smart Connector flex cable, or you may damage it. Leave your card inserted to keep the battery from re-adhering.**

## Step 35



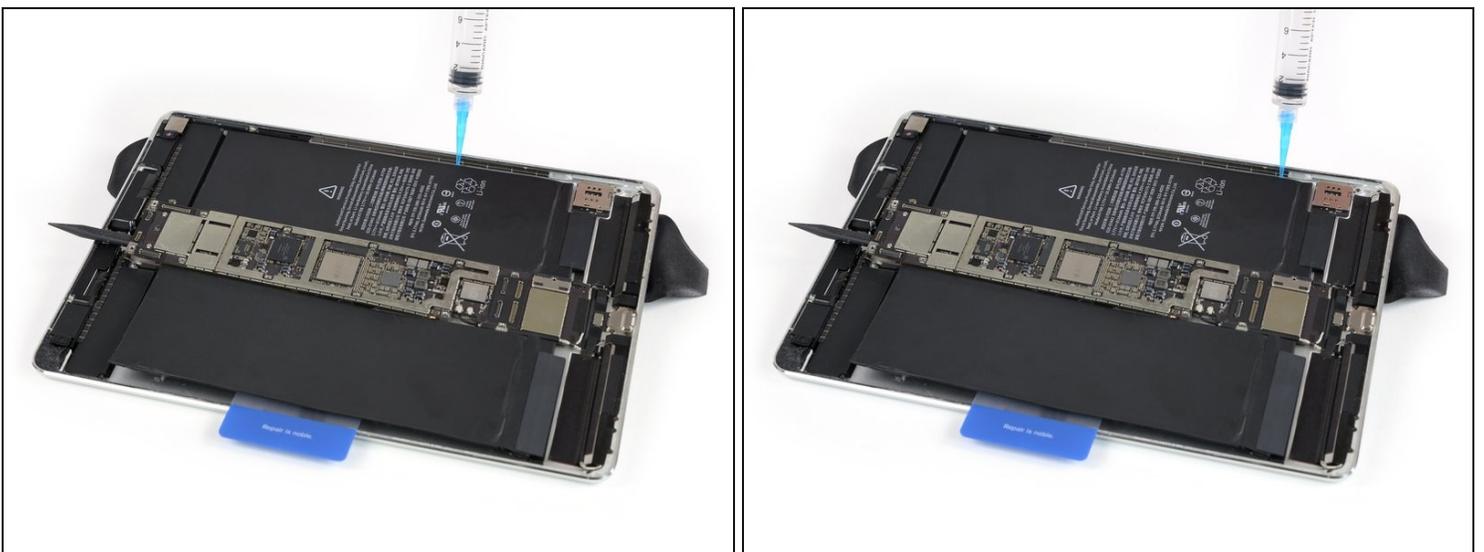
- Carefully insert a spudger underneath the battery at the same height as the display connectors. You might need to reapply an iOpener or adhesive remover.  
⚠ Be careful not to puncture the battery by prying too hard.
- Pry up the battery using the spudger and cut the remaining adhesive with it.
- Lift the battery with the spudger to ensure all the adhesive is loosened.
- Place the plastic card under the center of the battery cell, and leave it there to prevent the adhesive from re-sealing.  
⚠ Mind the Smart Connector cable.

## Step 36



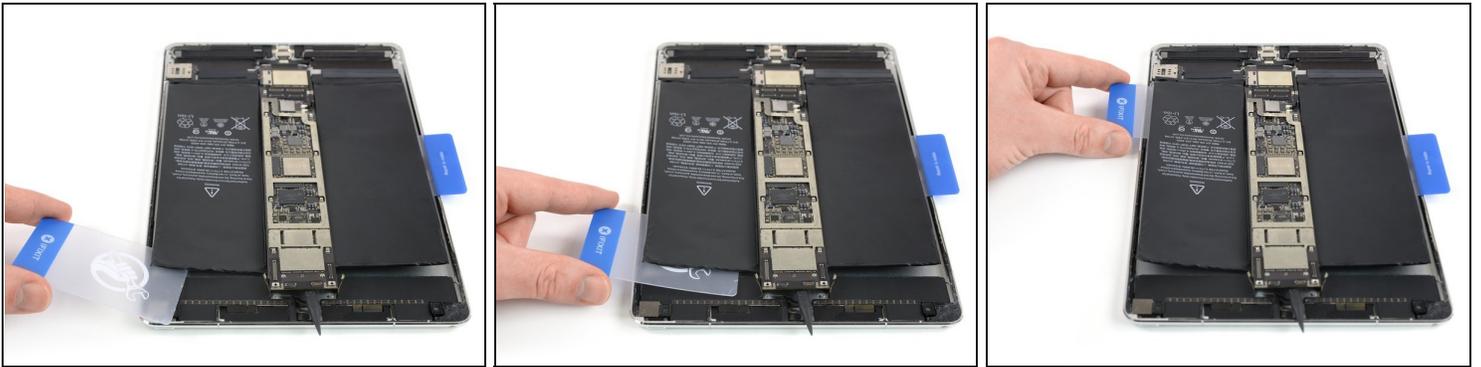
- Elevate the right side of the iPad (long edge, nearest the rear camera) by placing an iOpener underneath, so that the iPad lays down at an angle.
- Apply some solvent underneath the battery at the two leftmost [adhesive strip locations](#).

## Step 37



- Continue separately applying solvent at the remaining two [adhesive strip locations](#). Allow it to penetrate for several minutes to help weaken the adhesive.

## Step 38



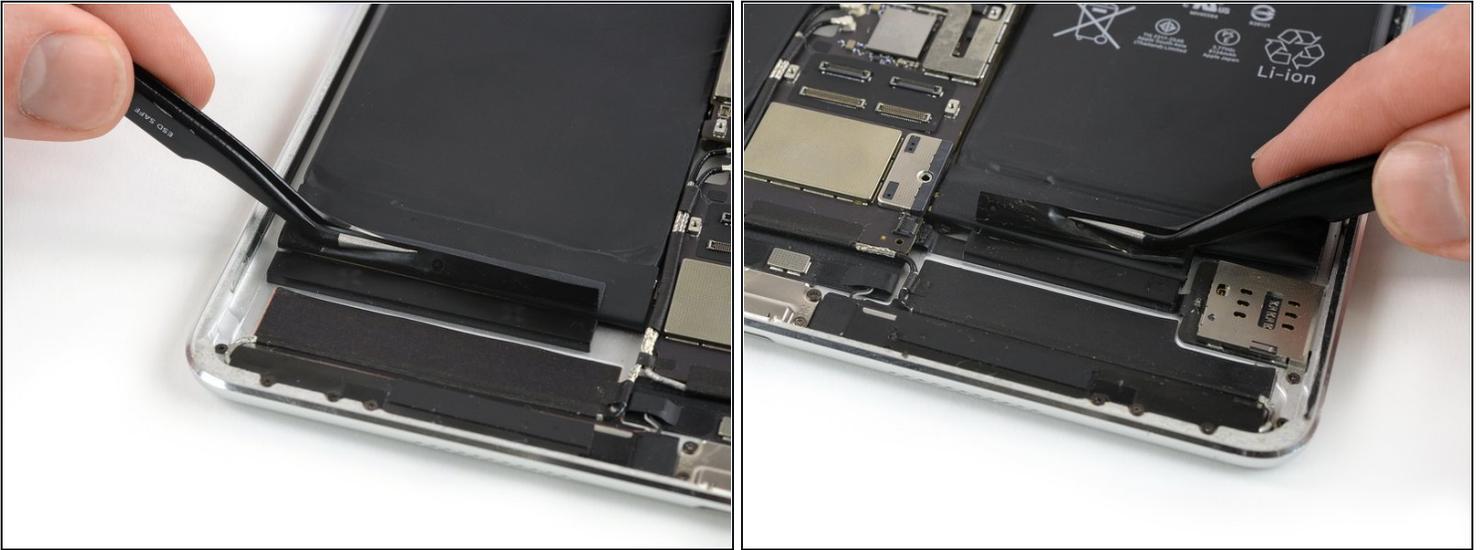
- Remove the iOpener so the iPad lays flat, and rotate it so the headphone jack faces towards you.
- Insert a plastic card underneath the battery cell, starting near the outer corner.
- Wiggle the card from side to side and push it underneath the battery to separate the adhesive underneath.
- Slide the plastic card down toward the bottom edge of the iPad and cut all the adhesive beneath the battery cell.

## Step 39



- Lift the battery cell slightly to ensure all the adhesive is separated.
- Leave the plastic card under the battery to prevent it from re-adhering.

## Step 40



- Peel up the black adhesive strip at the bottom edge of each battery cell, if they didn't already come off during the prying procedure.

## Step 41



**⚠ In this step, don't fold back the logic board to more than a 100° angle. Some connectors are still attached to it and can be damaged.**

- Lifting from the top edge, swing the logic board up until it's roughly perpendicular to the iPad.
  - Prop the board up securely so it doesn't move while you work. (Don't use anything metallic or conductive.)
- i** You can use a small rubber band to keep the logic board in place.

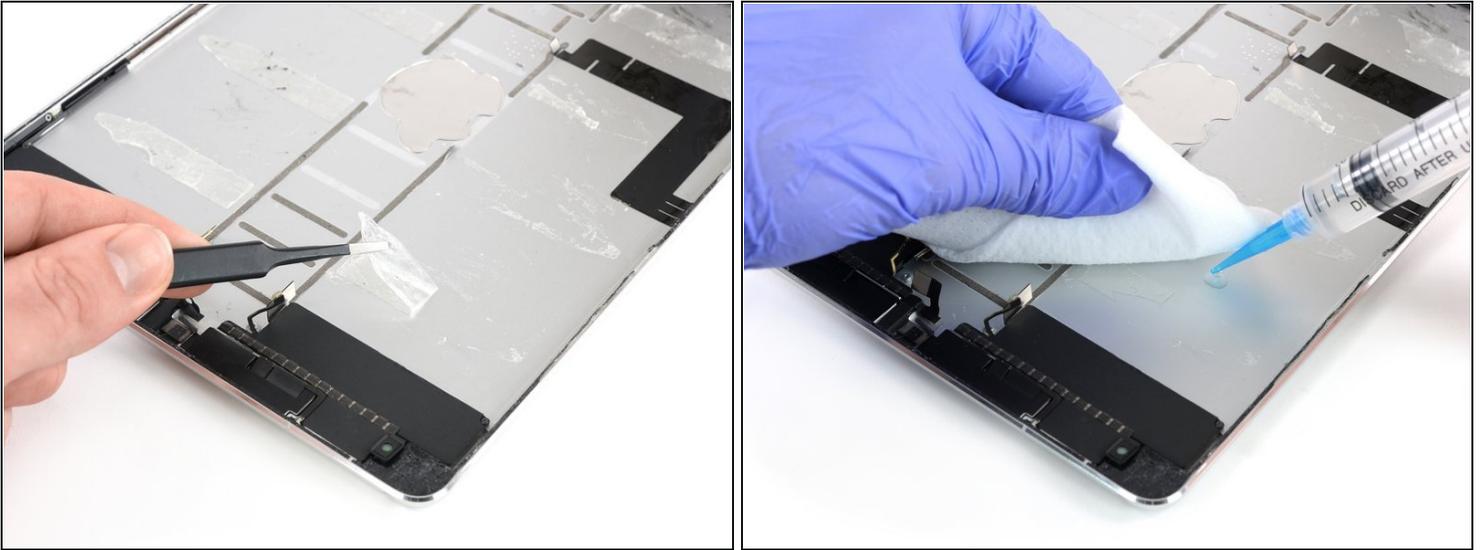
## Step 42



- Get a good grip on both sides of the battery and remove it from the iPad.

**⚠ Do not reuse the battery after it has been removed, as doing so is a potential safety hazard. Replace it with a new battery.**

## Step 43



- Use a pair of tweezers to peel off the remaining adhesive strip parts.
- Clean the glued areas with isopropyl alcohol and a lint-free cloth before installing a new battery to ensure the new battery fits and the adhesive bonds correctly.
- ☑ If your new battery doesn't come with adhesive pre-applied, secure it with pre-cut adhesive or [double-sided adhesive tape](#).
- ☑ In order to position it correctly, apply the new adhesive into the iPad at the places where the old adhesive strips were located, not directly onto the battery. Press the new battery firmly into place for 5-10 seconds.

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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.**

**If possible**, turn on your iPad and **test your repair** before resealing the tablet.

For optimal performance, calibrate your newly installed battery after completing this guide: Charge it to 100% and keep charging it for at least 2 more hours. Then use your device until it shuts off due to low battery. Finally, charge it uninterrupted to 100%.

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

Repair didn't go as planned? Check out our [Answers community](#) for troubleshooting help.

