iPad Pro 12.9" Display Assembly Replacement

This is a prerequisite guide! This guide is...

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INTRODUCTION

This is a prerequisite guide! This guide is part of another procedure and is not meant to be used alone.

This guide shows how to remove the screen or display assembly for the iPad Pro 12.9”.

TOOLS:

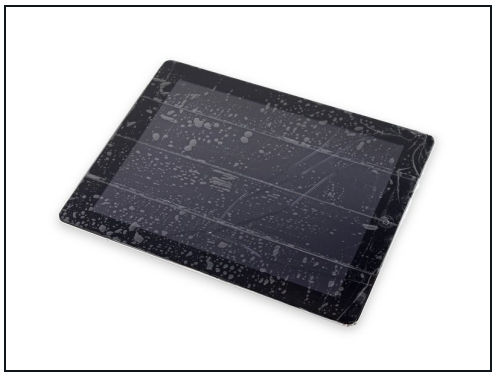
- iOpener (1)
- iFixit Opening Picks (Set of 6) (1)
- Spudger (1)
- Tweezers (1)
- Suction Handle (1)
- Phillips #00 Screwdriver (1)
- Deck of Cards (1)
- Masking Tape (1)
- Battery Blocker (1)
- Halberd Spudger (1)
- Packing Tape (1)
- Safety Glasses (1)
- Anti-Clamp (1)

PARTS:

- iPad Pro 12.9" Screen (1)
- iPad Pro 12.9" (2015) Adhesive Strips (1)

Step 1 — Tape over a cracked screen



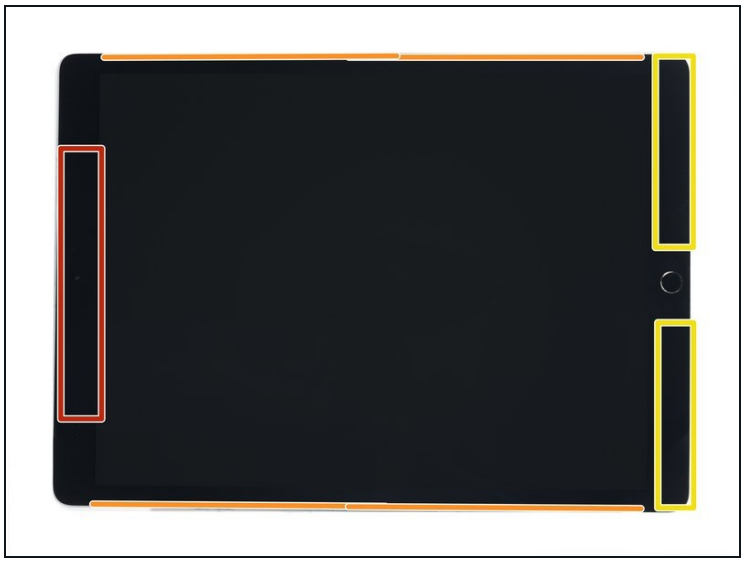


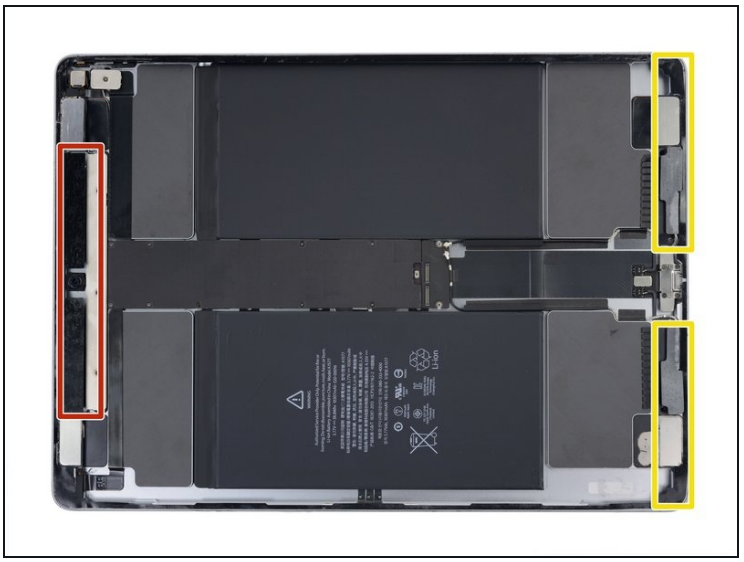
- Completely power down your iPad before you begin.
- If your screen is cracked, lay overlapping strips of clear packing tape over the iPad's screen until the whole face is covered.

  ⓘ 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





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.

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





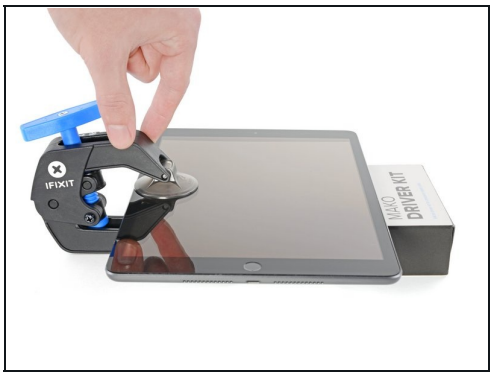
- Heat an iOpener and lay it over the left edge of the iPad to soften the adhesive holding the screen in place.

  ⓘ 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







ⓘ 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.**

ⓘ For complete instructions on how to use the Anti-Clamp, check out this guide.

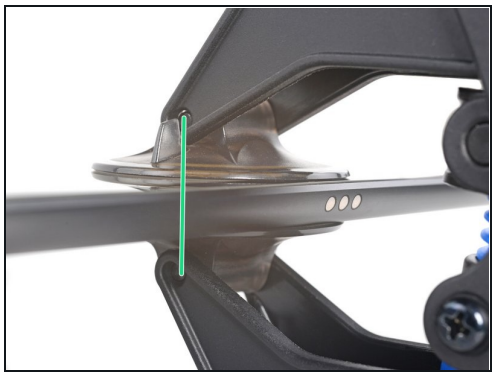
- Pull the blue handle backwards to unlock the Anti-Clamp's arms.
- Place an object under your iPad so it rests level between the suction cups.
- Position the suction cups near the middle of the left edge—one on the top, and one on the bottom.
- Hold the bottom of the Anti-Clamp steady and firmly press down on the top cup to apply suction.

ⓘ 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

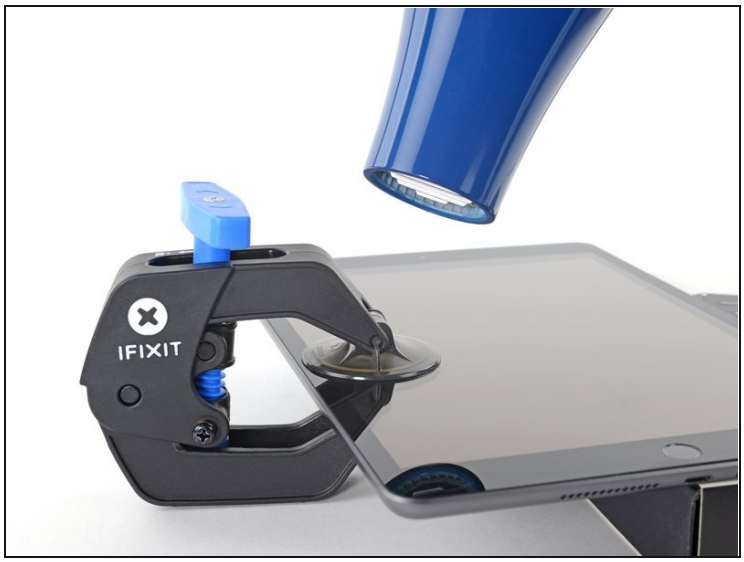






- Pull the blue handle forward to lock the arms.
- Turn the handle clockwise 360 degrees or until the cups start to stretch.
- Make sure the suction cups remain aligned with each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.

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.

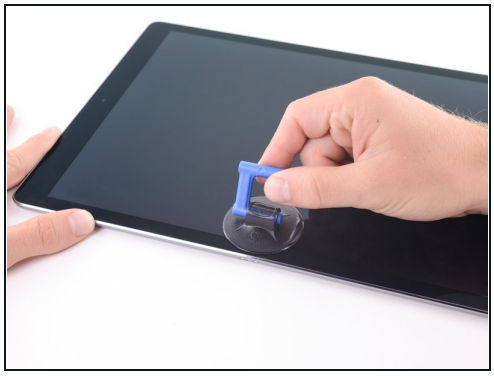
  ⚠ Don't crank more than a half a turn at a time, and wait one minute between turns. Let the Anti-Clamp and time do the work for you.
- **Skip the next two steps.**

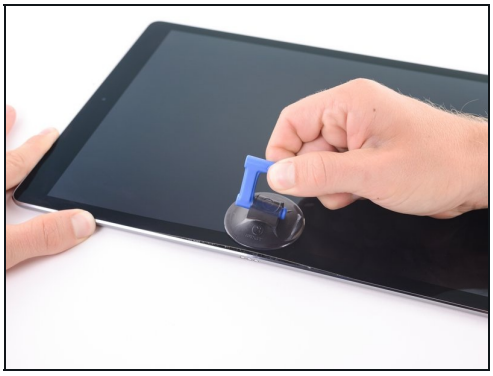
Step 7 — Loosen the screen adhesive



- 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.

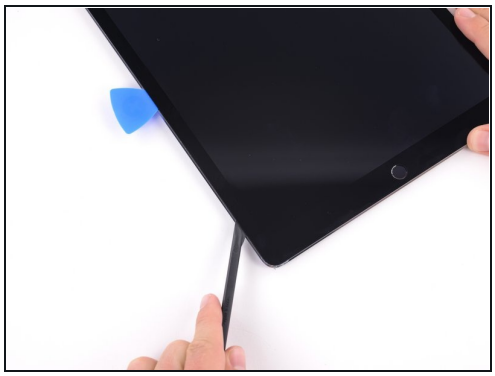
  ⓘ If the edge cools down during the pulling process, reheat the edge with an iOpener before proceeding.

- 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.

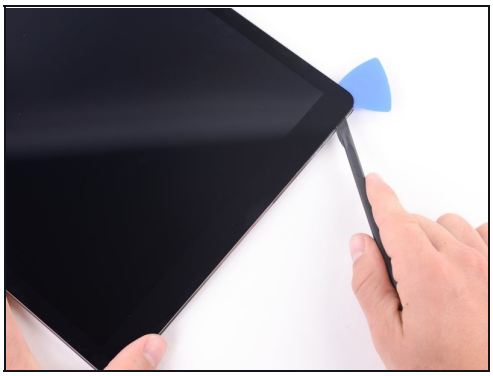
Step 12



- 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.

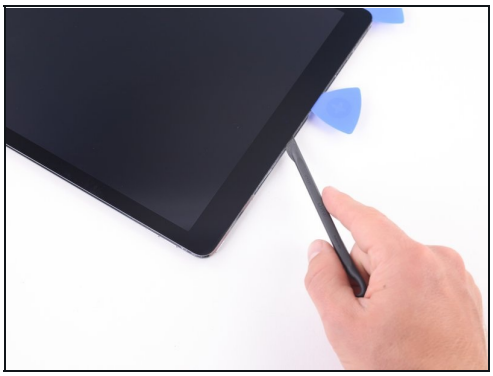
Step 14




- 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.

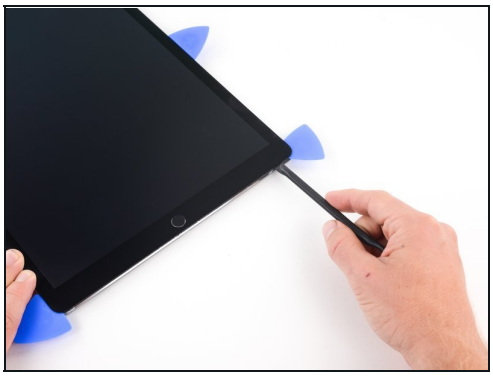
Step 18




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

Step 19

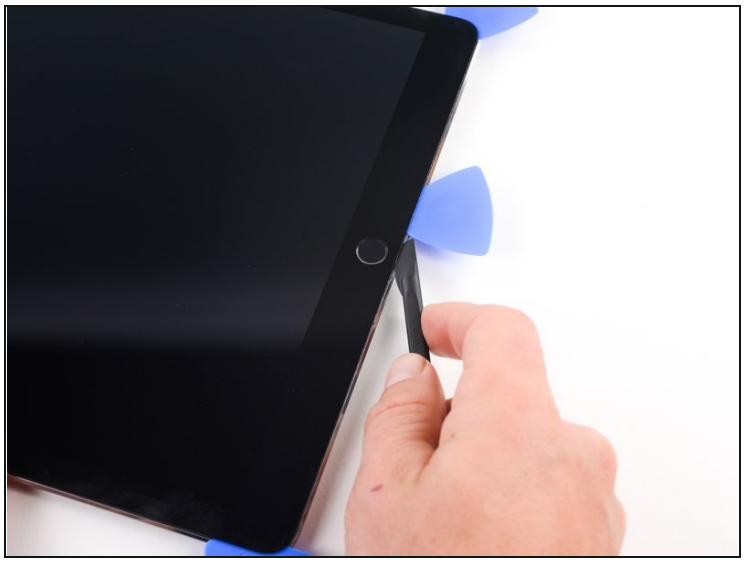
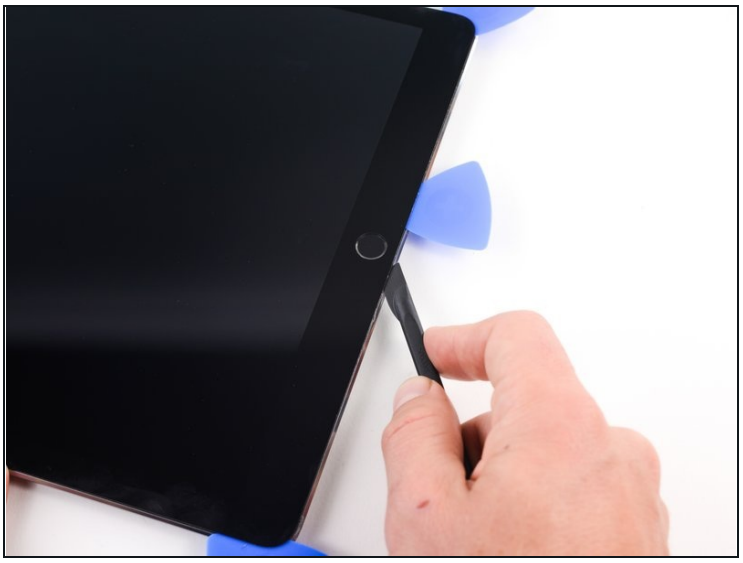





- Use an iOpener to heat the lower edge of the iPad.
- Insert an opening pick or a halberd spudger blade 1/4" into the lower right corner of the iPad.
- Slide the opening pick along the lower edge of the iPad, stopping short about 1/2" before reaching the home button.

⚠ 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.

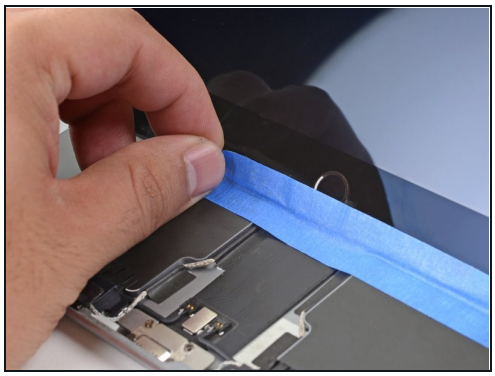
Step 22



- 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.

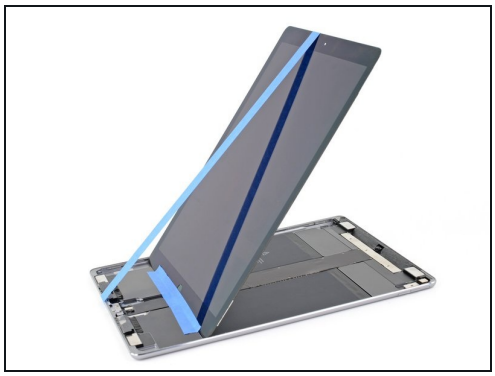
  The display cables will tear if you raise the screen more than 80 degrees.

- 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



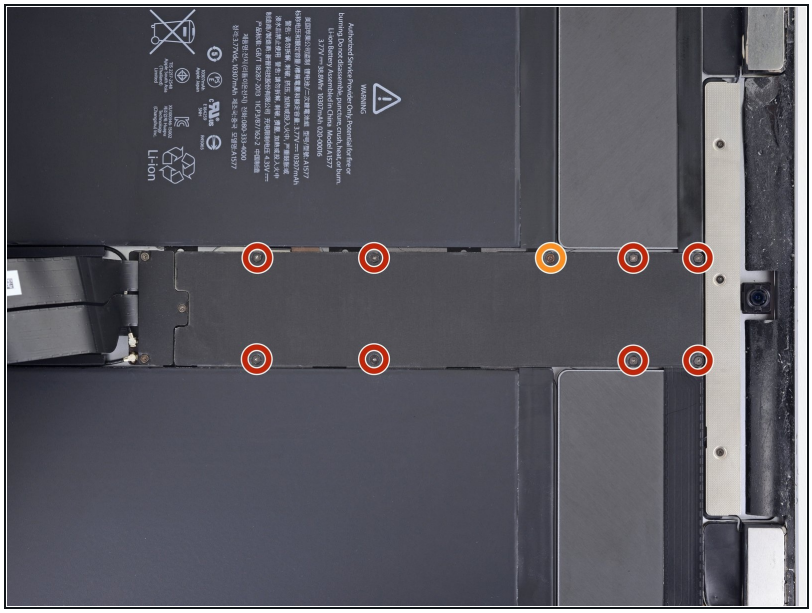




ⓘ This step shows one way to support the screen using masking tape. You can also turn the iPad sideways. Make sure not to strain the display cables with whatever method you choose.

- 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.

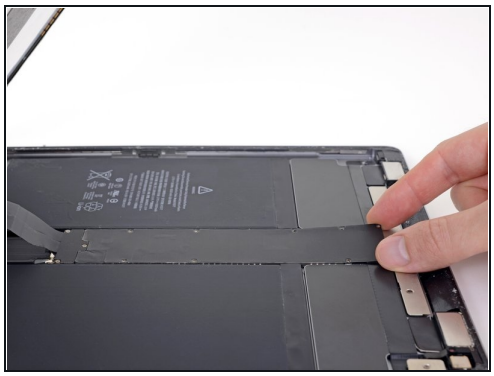
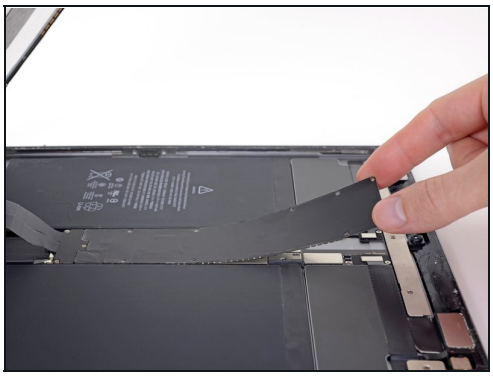
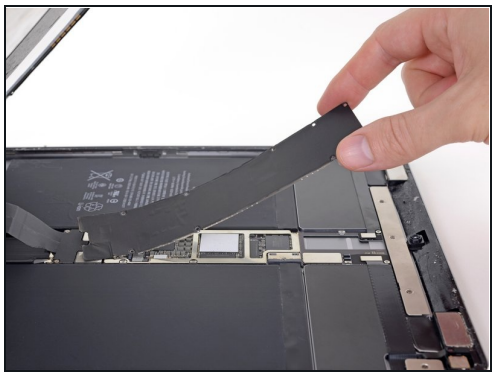
Step 25 — Disconnect the battery



⚠ 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

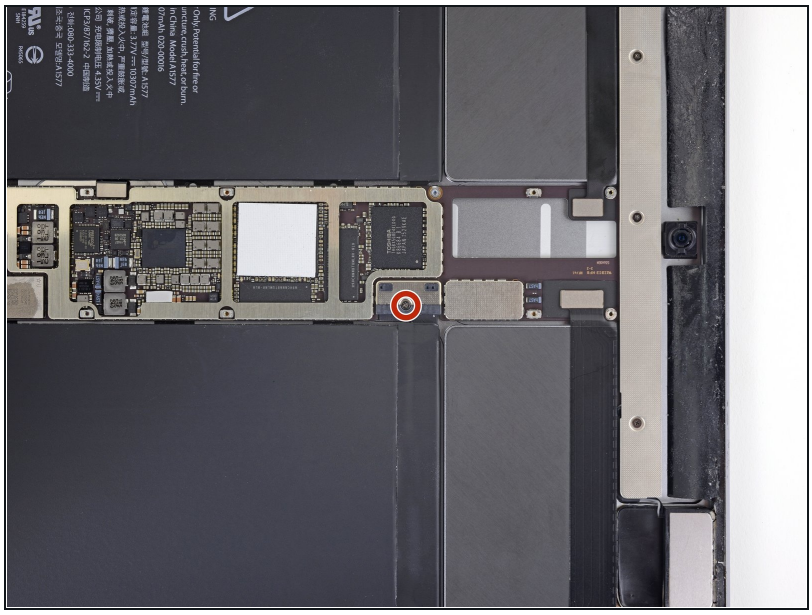
Step 26

- 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.

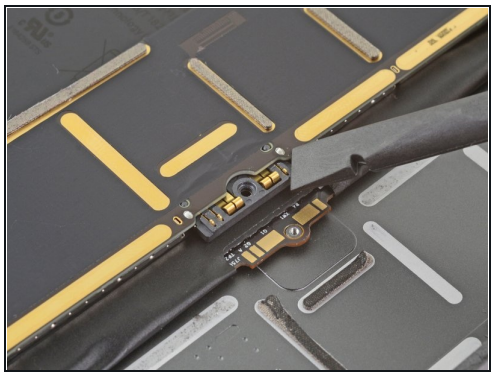
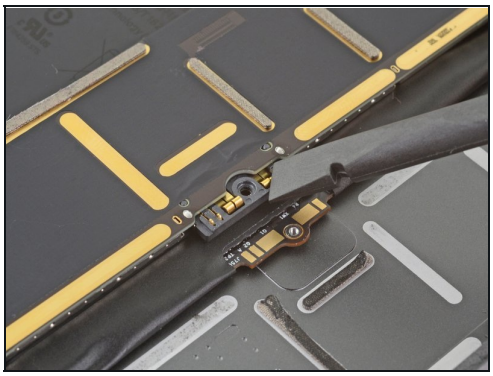
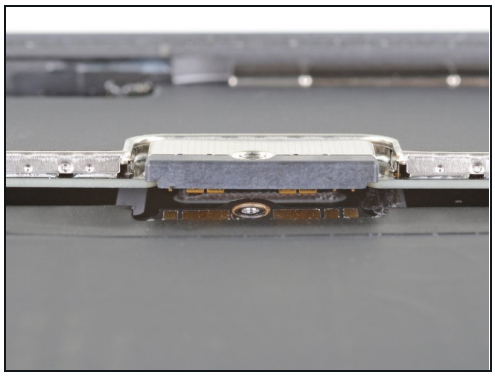
  This takes a bit of force due to the many tiny clips securing the shield, and the shield may deform slightly. That's okay—try to keep the deformation to a minimum, and it will lay flat when you reinstall it and screw it down.
- Remove the logic board EMI shield.

Step 27



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

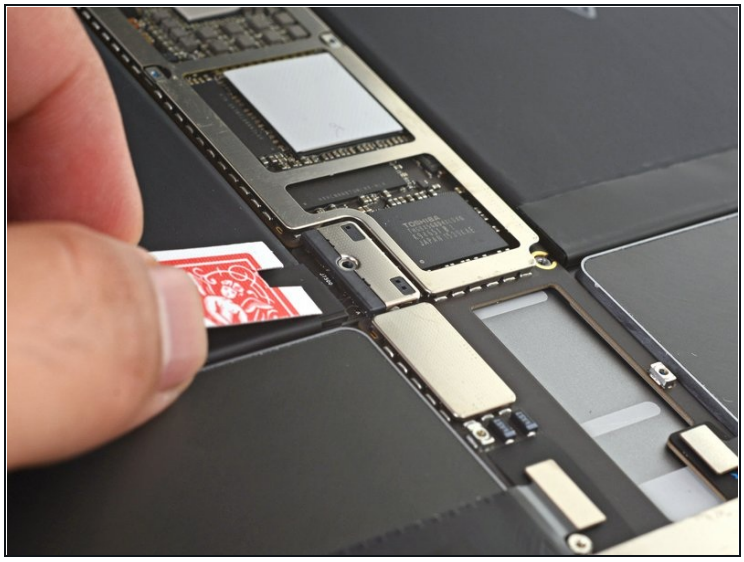
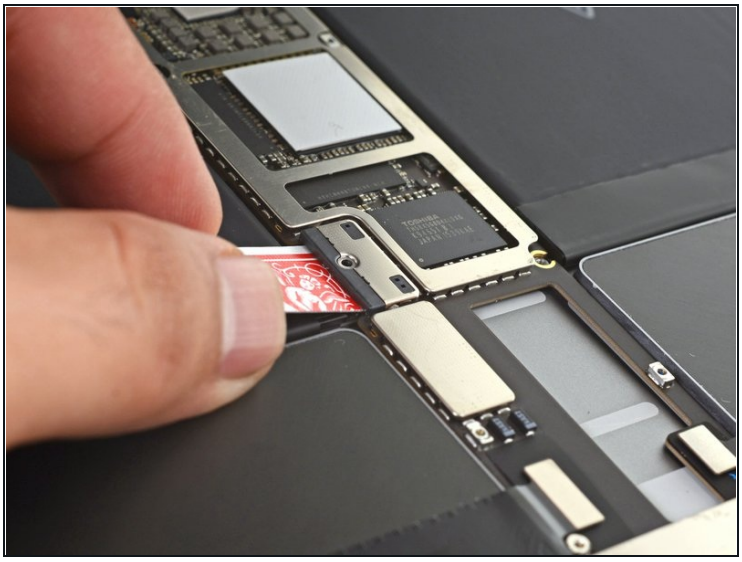
Step 28 — Battery connector information

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.

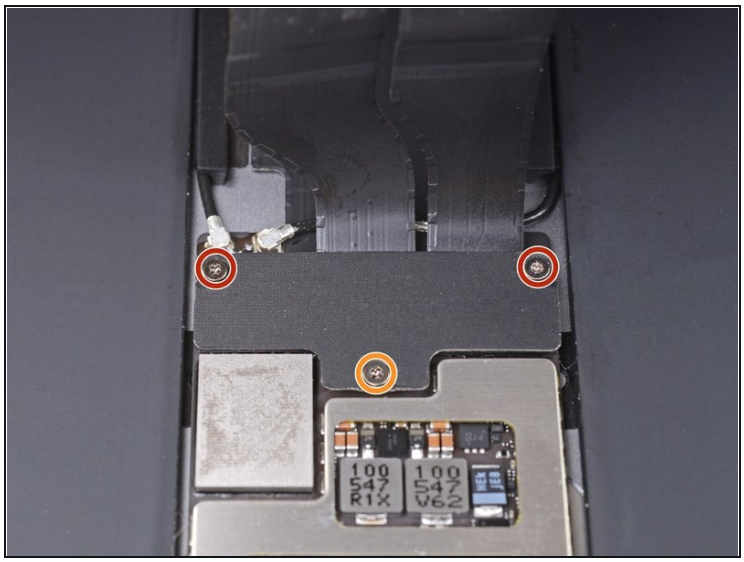
Notice that the battery connector has springs on the logic board that press down against the battery contact pads. You'll need to slide something thin and flexible between the contact points to disconnect the battery.

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.

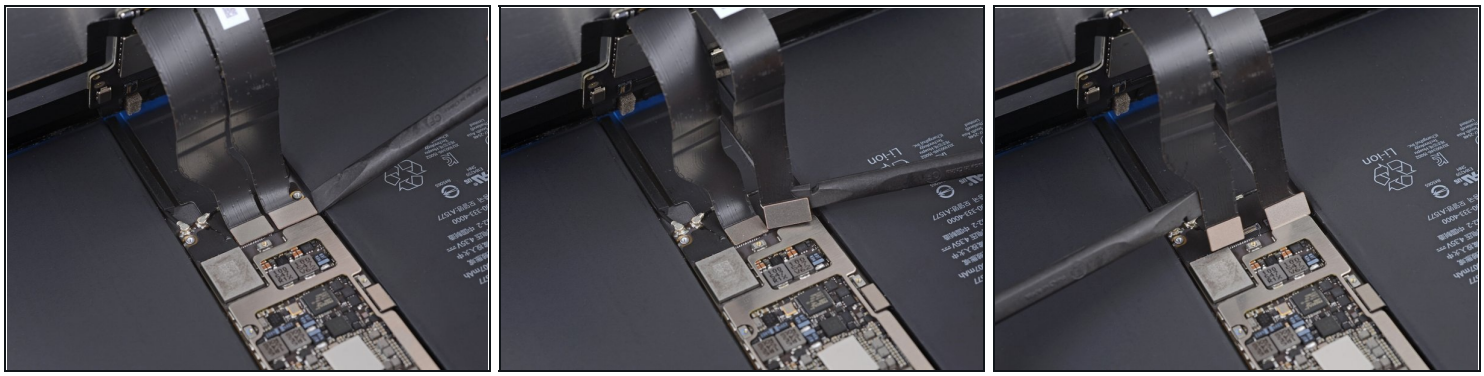
Step 30 — Disconnect the screen





- 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.

ⓘ 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.

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 the above steps in reverse order.

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.