# iPad 6 Wi-Fi Front Panel Assembly Replacement

Use this guide to replace the front glass and...

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## INTRODUCTION

Use this guide to replace the front glass and digitizer assembly on an iPad 6.

**The Touch ID sensor in the Home button is paired to the logic board. In order to retain Touch ID functionality, you need to transfer the original Home button to the new front panel assembly.**

**Be very careful when you isolate the battery using a battery blocker.** The battery contacts are easily damaged, resulting in irreversible damage. If you choose to complete the guide without isolating the battery, avoid using metal tools except when completely necessary (like when removing screws) to prevent shorting the battery and damaging sensitive circuit components.

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**TOOLS:**

Anti-Clamp (1)
iFixit Opening Tool (1)
iOpener (1)
iFixit Opening Picks (Set of 6) (1)
Suction Handle (1)
Tweezers (1)
Phillips #00 Screwdriver (1)
Spudger (1)
Battery Blocker (1)
Phillips #000 Screwdriver (1)

**PARTS:**

iPad 6 Screen Digitizer (1)
iPad Air, iPad 5, iPad 6 Adhesive Strips (1)

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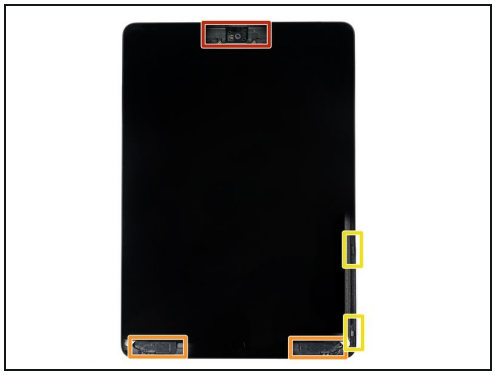
## Step 1 — Heat the left edge

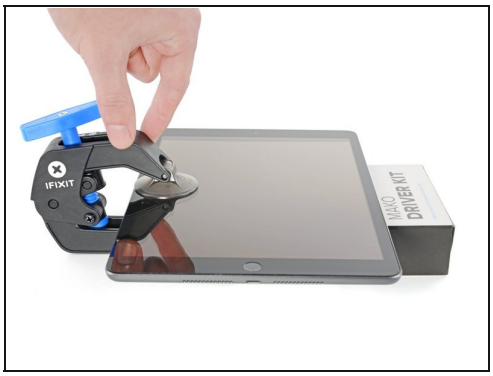

- Heat an iOpener and apply it to the left edge of the device for two minutes.

## Step 2 — Screen removal information



- While you're waiting for the adhesive to loosen, note the following areas that are sensitive to prying:
  - Front camera
  - Antennas
  - Display cables

## Step 3 — 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.**

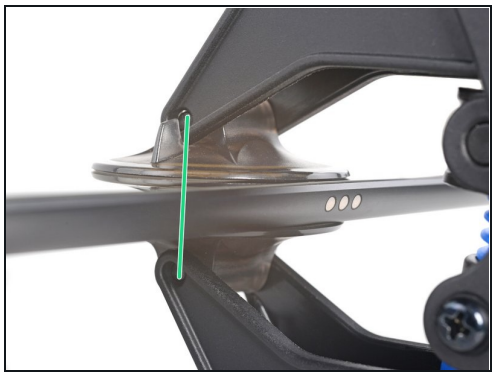
ⓘ For complete instructions on how to use the Anti-Clamp, check out this guide.

- 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.

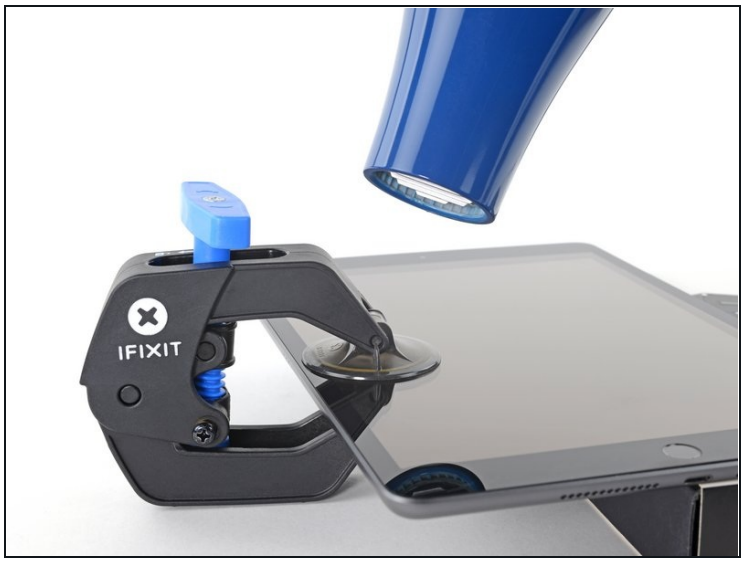
## Step 4





- 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 5




- 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 digitizer 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 step.**

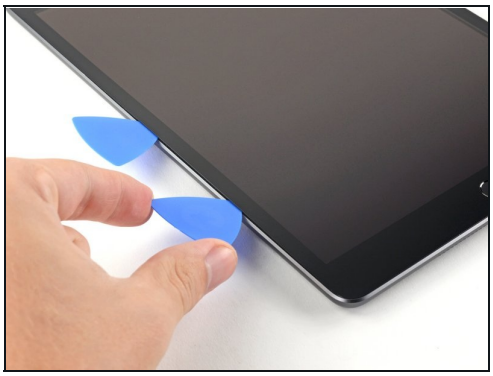
## Step 6 — Insert an opening pick



If your display is badly cracked, covering it with a layer of clear packing tape may allow the suction cup to adhere. Alternatively, very strong tape may be used instead of the suction cup. If all else fails, you can superglue the suction cup to the broken screen.

- Once the screen is warm to touch, apply a suction handle to the left edge of the screen and as close to the edge as possible.
- Lift the screen with the suction handle to create a small gap between the digitizer and the frame.
- Insert an opening pick into the gap between the digitizer and the frame.

## Step 7 — Separate the left adhesive


- Insert a second opening pick into the gap you just created.
- Slide the pick toward the bottom-left corner of the device to separate the adhesive.
- Leave the pick in the bottom-left corner to prevent the adhesive from re-sealing.

ⓘ Don't worry if you can see the opening pick through the digitizer—just pull the pick out. The LCD screen shouldn't be damaged, but you risk leaving behind hard-to-clean adhesive.

## Step 8



- If the opening pick gets stuck in the adhesive, "roll" the pick along the side of the iPad to continue separating the adhesive.

## Step 9



- Slide the first opening pick towards the top-left corner of the device to separate the adhesive.
- Leave the pick in the top-left corner to prevent the adhesive from re-sealing.

## Step 10 — Heat the top edge


- Heat an iOpener and apply it to the top edge of the device for two minutes.

## Step 11 — Separate the top left adhesive

- Rotate the pick around the top-left corner of the device to separate the adhesive.

## Step 12 — Separate the top adhesive

- Slide the opening pick along the top edge of the device, stopping just before you reach the front camera.

⚠ Avoid sliding the pick over the front camera, as you may damage the lens. The following steps will show how to prevent this.

## Step 13

- Pull the pick out until only the tip is between the digitizer and the frame.
- Slide the pick above the front camera to separate the adhesive.
- Leave the pick near the right side of the front camera before continuing.

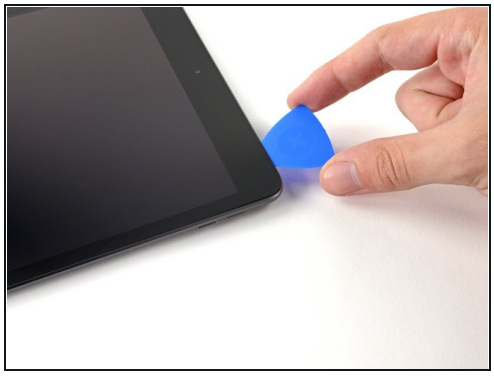
## Step 14

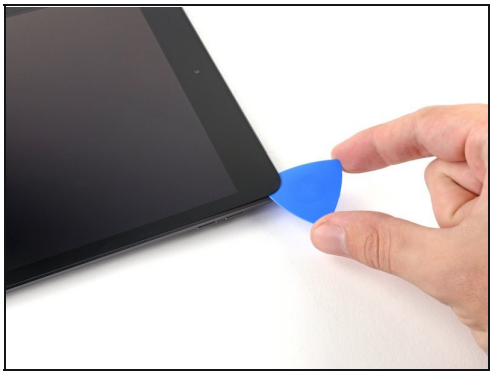
- Re-insert the pick and slide it towards the top-right corner of the device to completely separate the top adhesive.
- Leave the pick in the top-right corner to prevent the adhesive from re-sealing.

## Step 15 — Heat the right edge


- Heat an iOpener and apply it to the right edge of the device for two minutes.

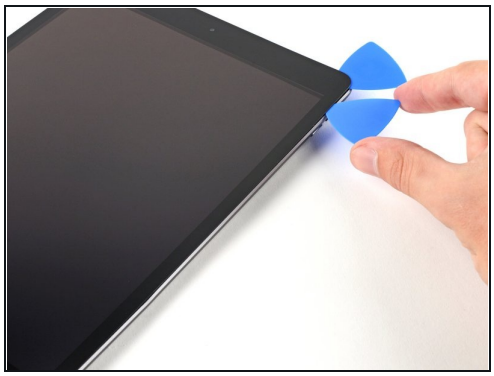
## Step 16 — Separate the top right adhesive





- Rotate the pick around the top-right corner of the device to separate the adhesive.

## Step 17 — Separate the right adhesive



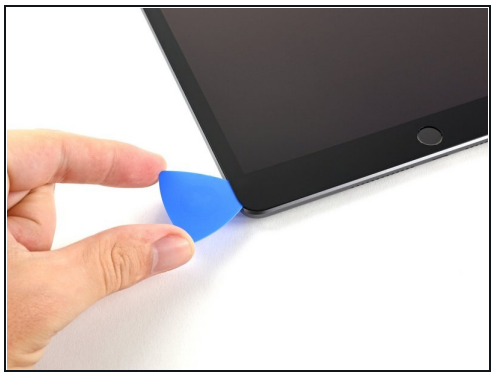
- Insert a new opening pick and slide it to the middle of the iPad's right edge.

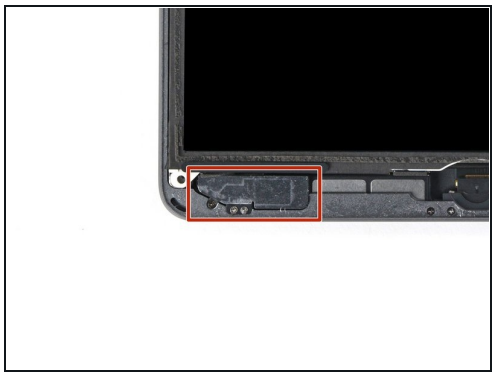
⚠ The display cables are located approximately halfway from the bottom of the iPad. Stop sliding once you reach three inches from the bottom of the iPad.

## Step 18 — Heat the bottom edge


- Heat an iOpener and apply it to the bottom edge of the device for two minutes.

## Step 19 — Separate the bottom left adhesive





- Slide the bottom-left pick to the bottom-left corner to separate the adhesive.

⚠ Don't fully rotate the pick around the corner, as you may damage the antenna.

- Leave the pick in the bottom-left corner before moving to the next step.

## Step 20 — Separate the bottom adhesive



- Insert a new opening pick into the gap you just created on the bottom edge of the iPad.
- Slide the pick over the antenna, stopping just before the home button.

⚠ Only slide the pick towards the home button and not away from it, as you may damage the antenna.

ⓘ If you need to slide the pick over this section again, remove and re-insert it at the bottom-left corner.

- Leave the pick to the left of the home button before continuing.

## Step 21

- Insert an opening pick into the gap you just created.
- Slide the pick underneath the home button and towards the bottom-right corner, making sure **only the tip** is between the digitizer and the frame.

⚠ Only insert the pick up to 1 mm to avoid damaging the right antenna.

## Step 22

- Re-insert the pick and slide it towards the home button to completely separate the bottom adhesive.

⚠ Only slide the pick towards the home button and not away from it, as you may damage the antenna.

ⓘ If you need to slide the pick over this section again, remove and re-insert it at the bottom-right corner.

- Leave the pick to the right of the home button before continuing.

## Step 23 — Heat the right edge


- Heat an iOpener and apply it to the right edge of the device for two minutes.

## Step 24

⚠ **Be very careful with this step.** Take your time, ensure the adhesive is hot and soft, and make sure you separated all of the adhesive with a pick. Don't be afraid to stop and reheat.

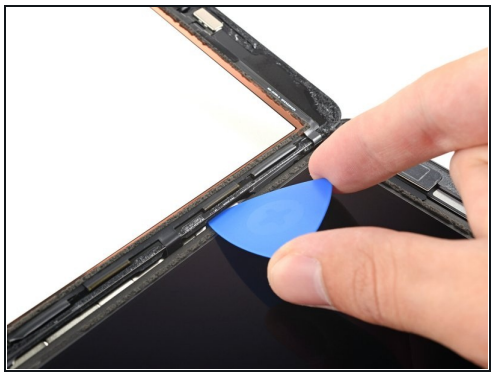
- Twist the two opening picks on the left corners of the iPad to lift the digitizer slightly, separating the the last of the adhesive in the process.

ⓘ If there's a significant amount of resistance, reheat the edges and work along them with an opening pick.

## Step 25

- Lift the left edge of the digitizer upwards to further separate the adhesive along the right edge of the iPad.

## Step 26 — Separate the right adhesive



- While supporting the digitizer, slide an opening pick between the two display cables to separate the last of the adhesive.

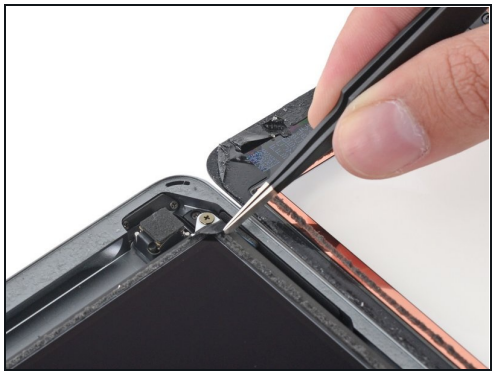
## Step 27

- Once all of the adhesive has been separated, open the digitizer like a book and rest it parallel to the iPad.

- During reassembly, clean the remaining adhesive from the frame—and the digitizer if you're re-using it—with isopropyl alcohol. Replace the adhesive with our adhesive strips or pre-cut adhesive cards.

- Be mindful of the display cables when reassembling the device. Make sure they are folded properly underneath the LCD screen to prevent any damage.

## Step 28 — LCD



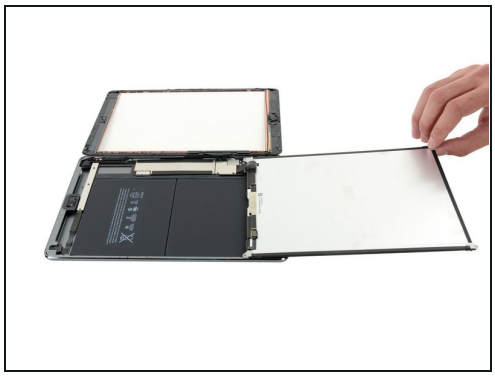
- Remove any tape obscuring the LCD screws.

## Step 29

- Remove the four Phillips #00 4.3 mm screws securing the LCD.

## Step 30





⚠ Do not attempt to fully remove the LCD. It is still connected to the iPad by several cables at the home button end. Lift only from the front-facing camera end.

- Use the flat end of a spudger to pry the LCD out of its recess just enough to grab it with your fingers. There may be glue around the screw holes that needs to be cut with a knife.

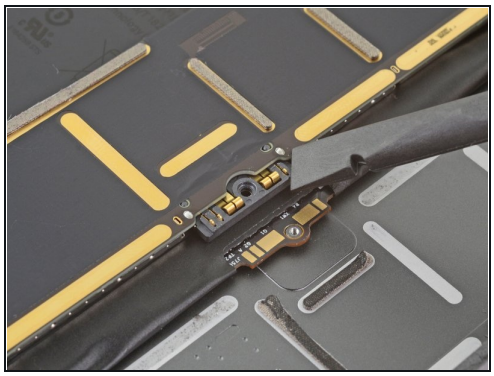
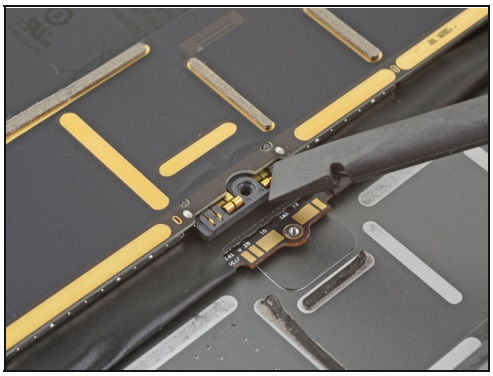
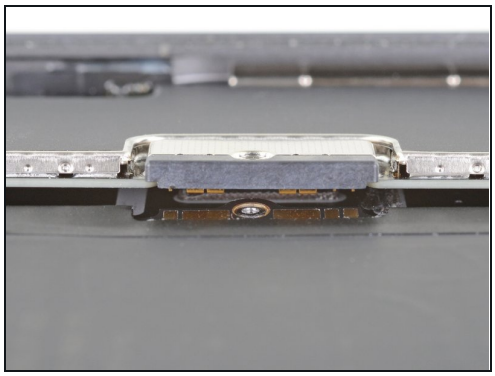
- Flip the iPad LCD like a page in a book, lifting near the camera and turning it over the home button end of the rear case.

⚠ Be gentle and keep an eye on the LCD cables as you flip the display over.

- Lay the LCD on its face to allow access to the display cables.

ⓘ Set the LCD down on a soft, clean, lint-free surface.

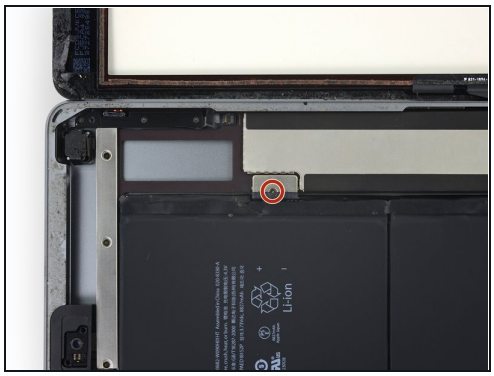
## Step 31 — Battery connector information

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 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 32



- Remove the single 2.3 mm Phillips #000 screw securing the battery connector to the logic board.

ⓘ To reduce the risk of a short, you can use a battery isolation pick to disconnect the battery.

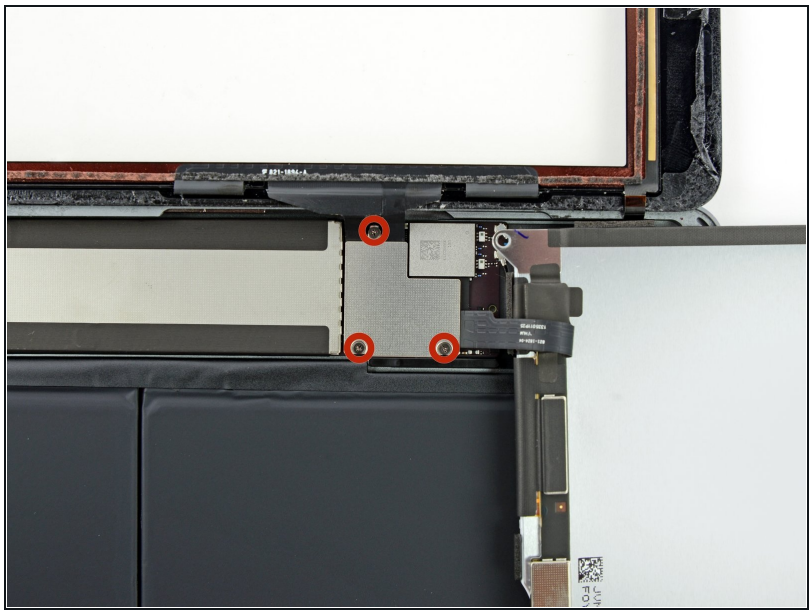
- Slide the battery blocker underneath the logic board's battery connector at a 35 degree angle.

ⓘ 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. After insertion, it should rest at a 15 degree angle.

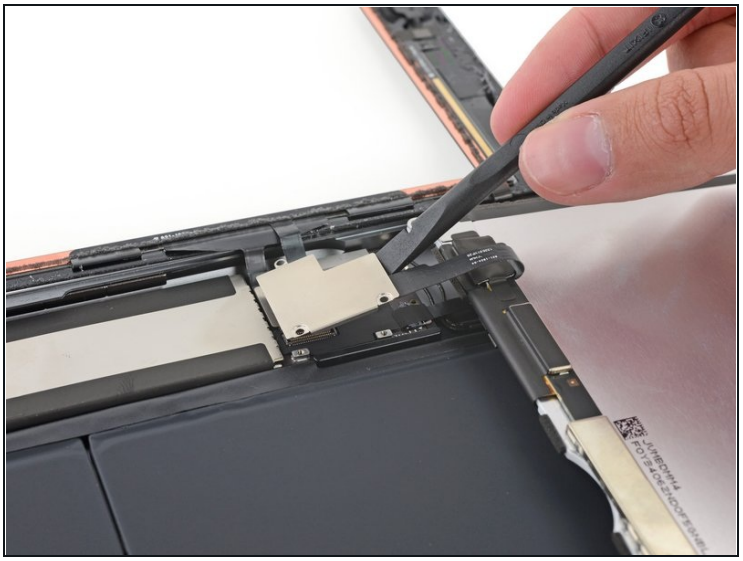
- Leave the battery blocker in place as you work.

## Step 33



- Remove the three 1.4 mm Phillips #000 screws from the display cable bracket.

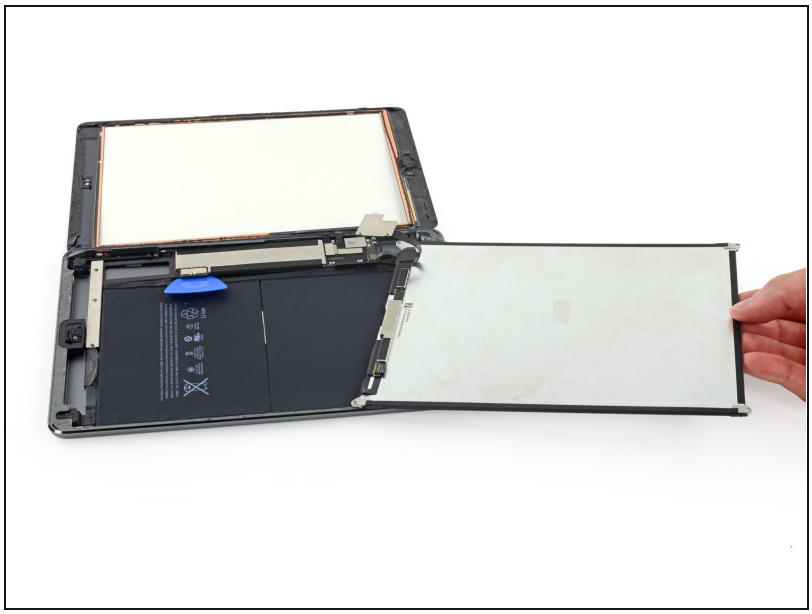
## Step 34



- Use the flat end of a spudger to gently pry the display cable bracket straight up from the logic board.

⚠ The display cable connector is adhered to the underside of the bracket, so don’t push the spudger too far under the bracket, or you may damage the connector.

## Step 35



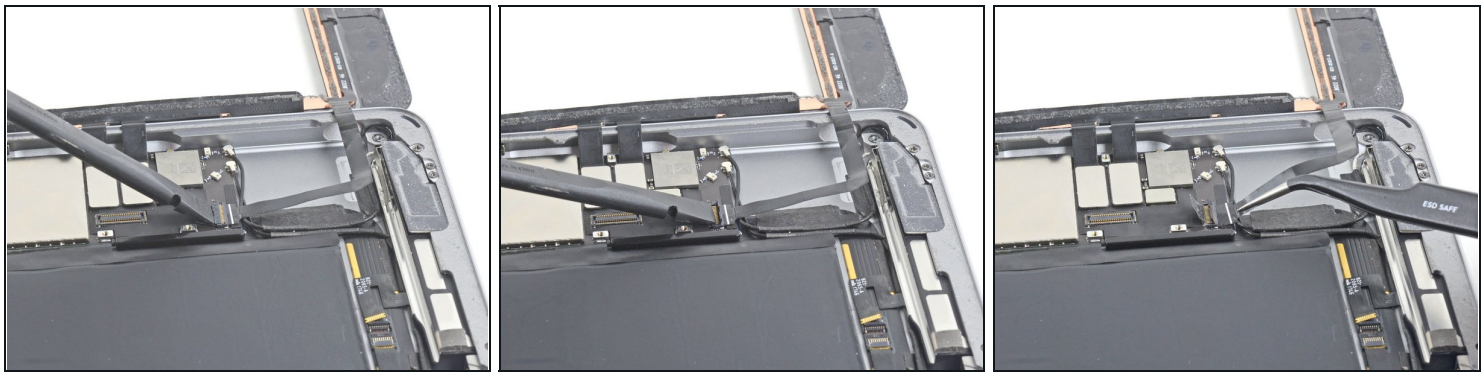
- Remove the LCD.

## Step 36 — Front Panel Assembly



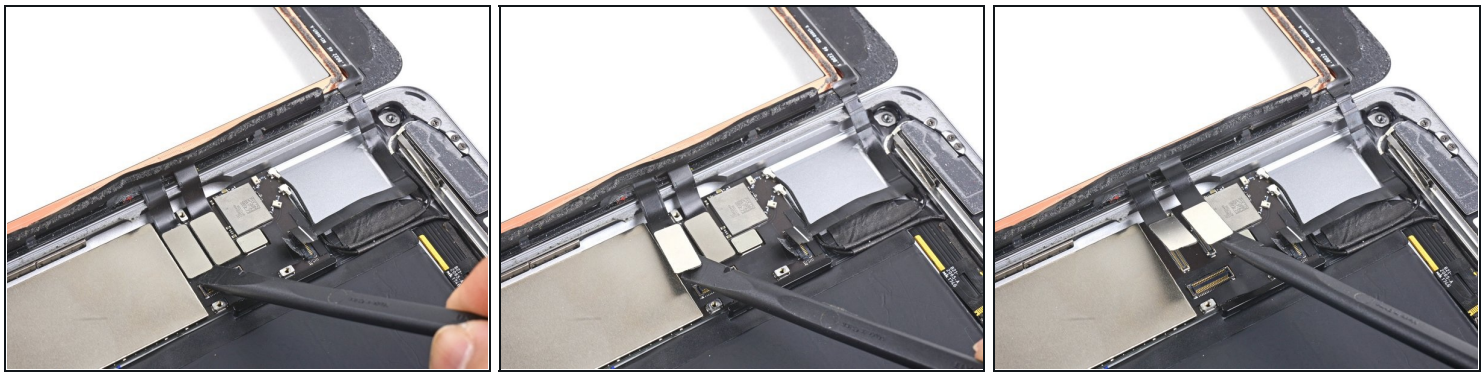
- Remove any tape covering the home button ribbon cable connector.

## Step 37



- Use the flat end of a spudger to flip the tab on the home button ribbon cable ZIF connector upward.
- Carefully pull the home button ribbon cable straight out of the ZIF connector.

## Step 38

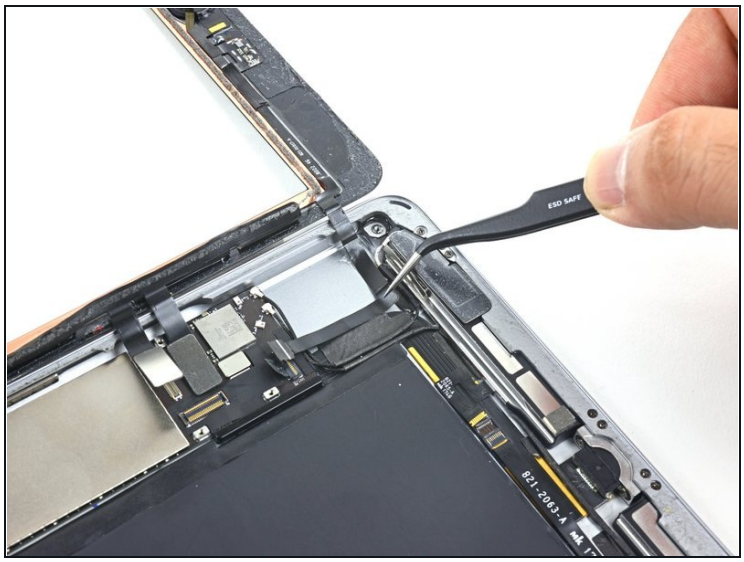


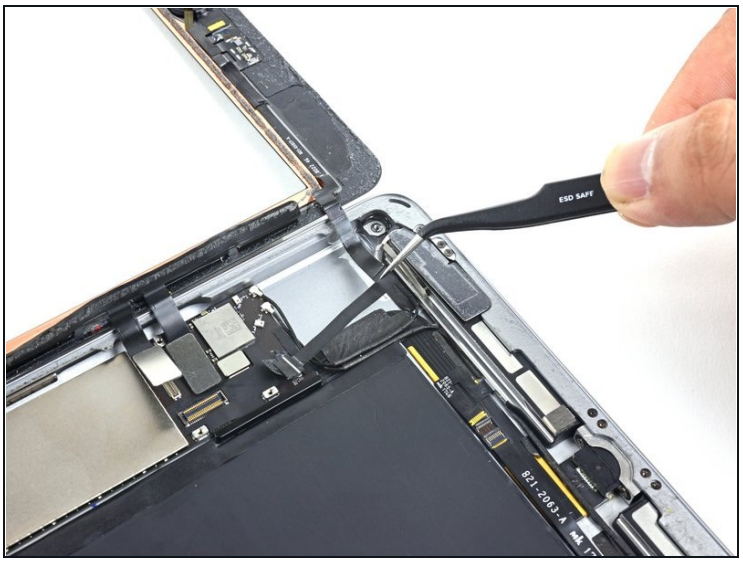
- Use a the flat end of a spudger or a fingernail to carefully pop the two digitizer cable connectors straight up from their sockets.

⚠ To avoid damaging your iPad, pry only on the connectors themselves, **not** on the socket on the logic board.

During reassembly, make sure that these connectors are completely seated in their sockets, or you may encounter display issues.

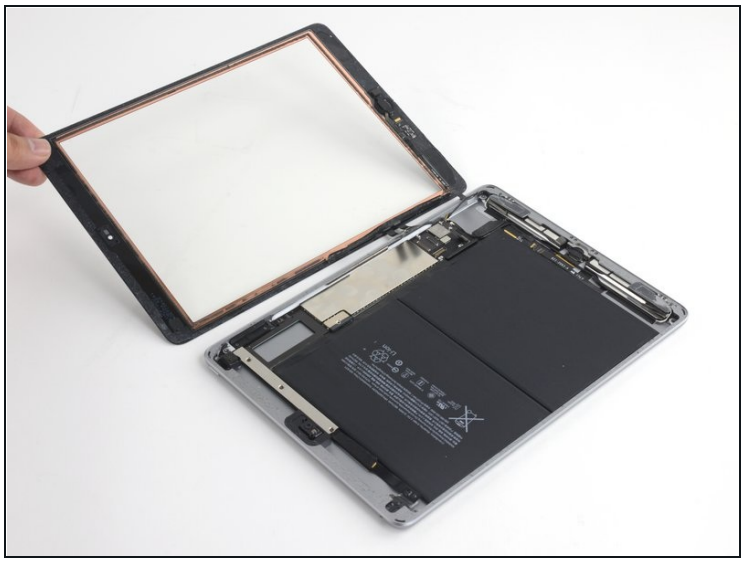
## Step 39

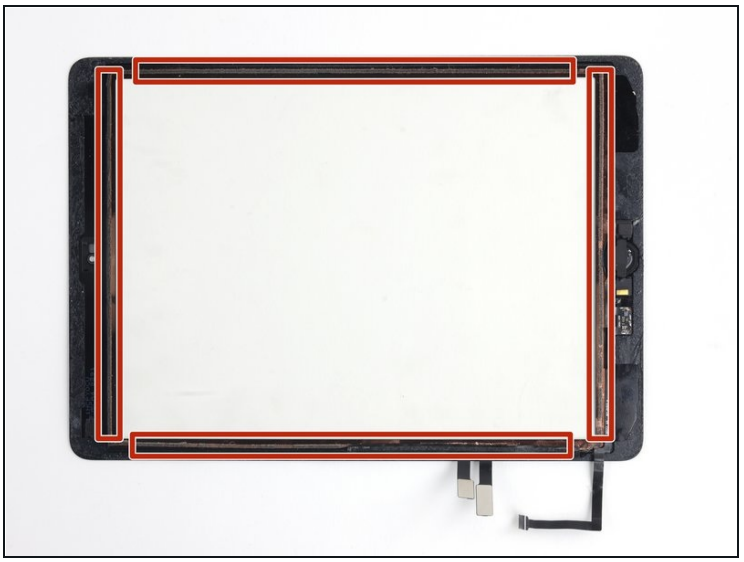



- Carefully peel the home button ribbon cable up off of the adhesive holding it to the rear case.

## Step 40





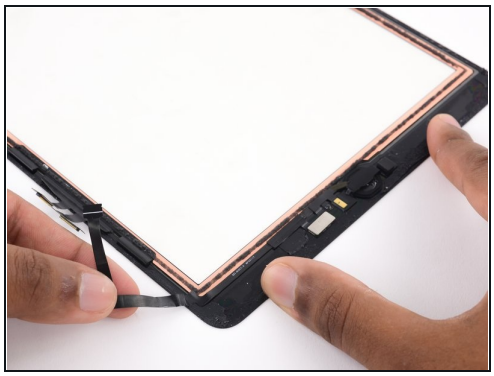
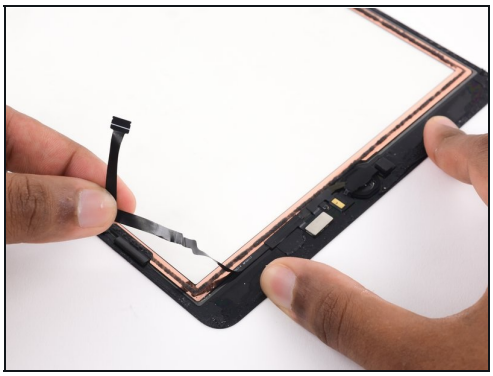
- Remove the front panel assembly.

- If you experience "ghost" or "phantom" touch input issues with your new display, this can be resolved by adding a layer of very thin insulating tape, such as Kapton (polyimide) tape, to the highlighted areas on the back of the panel. **iFixit panels come with the proper insulation, and should not require the addition of any tape.**

  Without the proper insulation, these areas of the digitizer can ground out against other components, causing touch input malfunction.

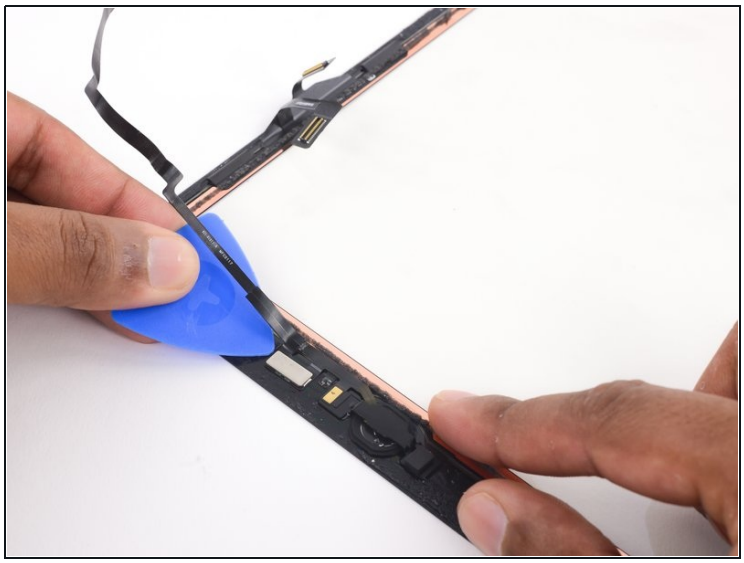
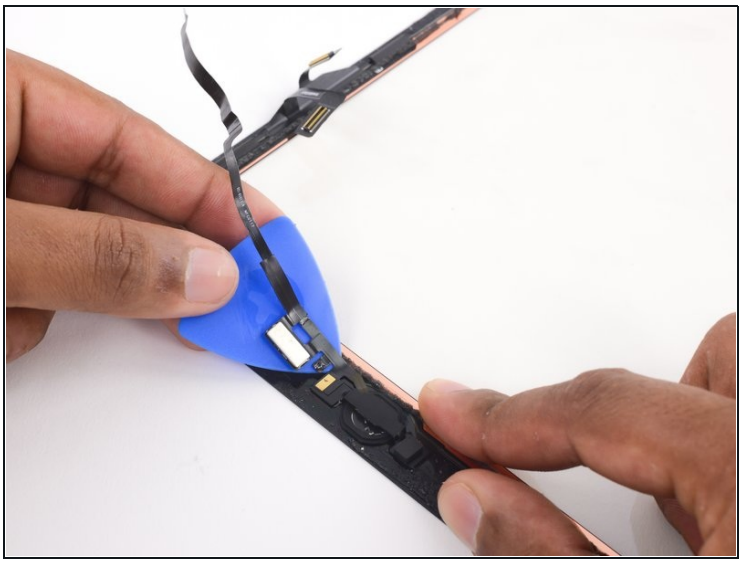
  The insulation is not visible to the naked eye, and is different from the foam dust barrier strips found on many iPads.

## Step 41 — Home Button Assembly

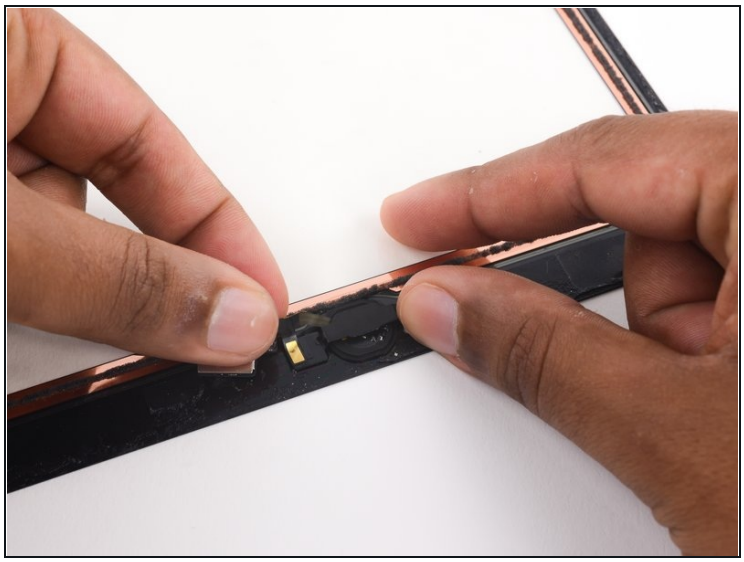
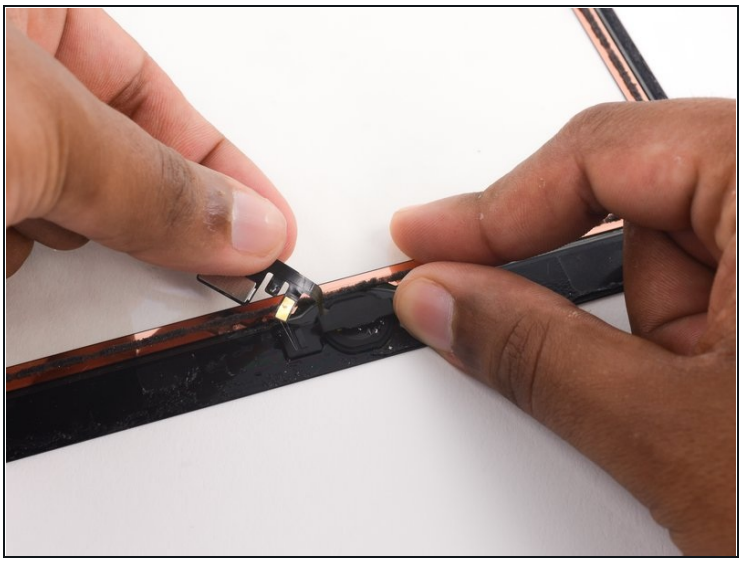

- Gently begin peeling the home button cable off the back of the front panel.
- Continue peeling until you reach the metal shield on the cable.

## Step 42

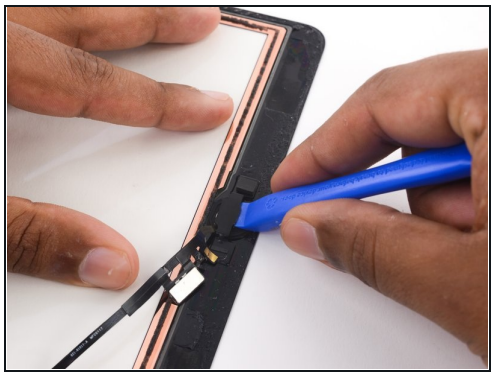
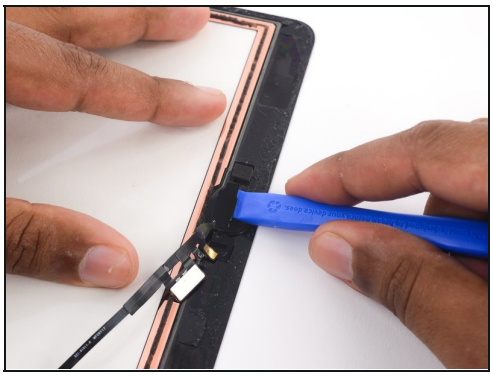
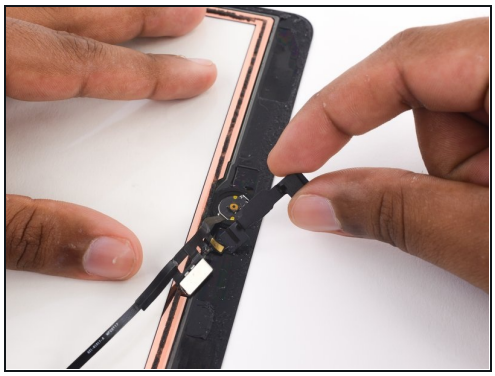
- Insert an opening pick between the metal shield and the front panel and gently pry it from the digitizer.

## Step 43

- Gently peel the metal contact from the home button bracket.

## Step 44

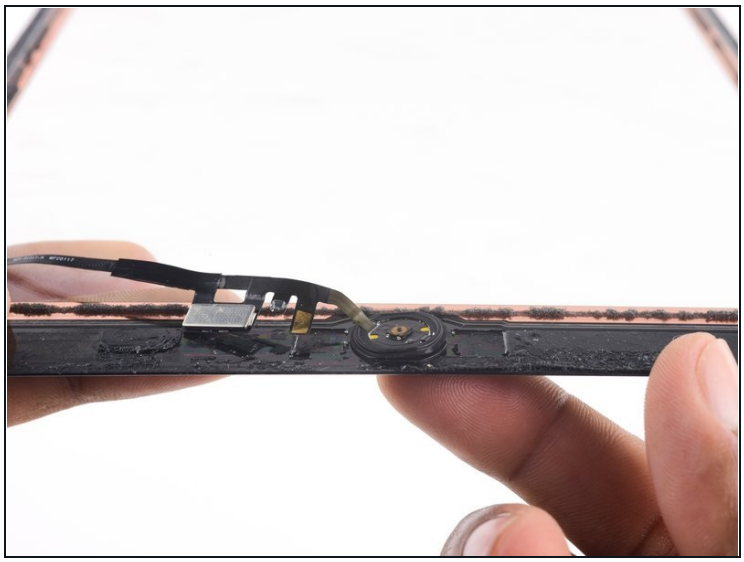




- Use a plastic opening tool to pry the home button bracket off the back of the front panel.

  When reattaching the home button bracket, use a dab of adhesive or double-sided tape to secure the bracket in place.

- Once you've separated one side of the home button bracket, firmly grasp the bracket and peel it off the front panel.

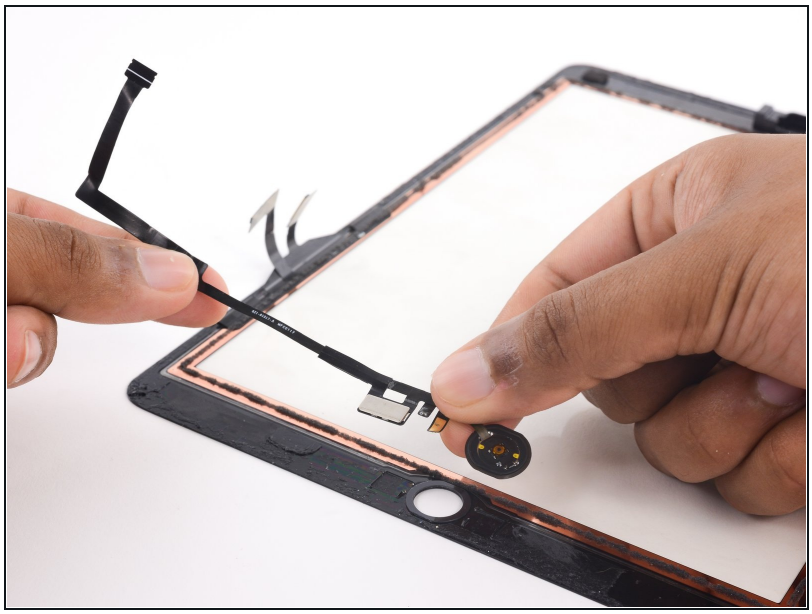
## Step 45



- Press the home button from the external side of the digitizer to break up the adhesive holding it in place.

⚠ Apply pressure slowly. The adhesive is attached to a delicate gasket that will tear easily.

## Step 46



- Remove the home button assembly.

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