

iPad Pro 10.5" Screen Replacement

Use this guide to replace a broken screen...

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INTRODUCTION

Use this guide to replace a broken screen (a.k.a. display or front panel assembly) on an iPad Pro 10.5". The screen consists of a glass touch panel or digitizer fused to an LCD. This entire assembly must be replaced as a single unit.

Note that the fingerprint scanner in the home button is paired to the iPad's logic board. In order to maintain Touch ID functionality after your repair, you must keep the original home button and transfer it onto the new screen as instructed below.

This repair can fix issues like a cracked glass digitizer, a non-responsive touchscreen, or a broken LCD.

You'll need **replacement adhesive** to reattach components when reassembling the device.

TOOLS:

Anti-Clamp (1)

Halberd Spudger (1)

iFixit Adhesive Remover (1)

Suction Handle (1)

iFixit Opening Picks (Set of 6) (1)

Battery Blocker (1)

iOpener (1)

Tweezers (1)

Phillips #00 Screwdriver (1)

Spudger (1)

Isopropyl Alcohol (1)

PARTS:

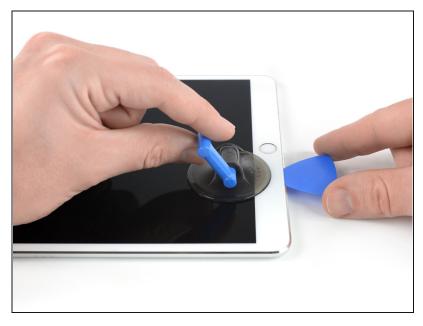
iPad Pro 10.5" Screen (1)

Step 1 — Prepare an iOpener



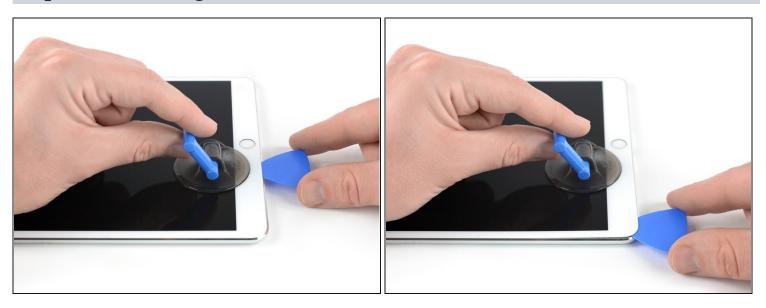
- i Strong adhesive holds the screen in place. In order to separate it, you'll first need to heat and soften the adhesive using an iOpener, hair dryer, or heat gun.
 - You may need to reapply heat repeatedly throughout this process to prevent the adhesive from cooling and hardening.
- Prepare an iOpener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

Step 2 — Create an opening gap



- i 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.
 - i To get the most leverage, place the suction cup as close to the edge as possible without going past the edge of the display.
 - (i) 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.







- 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.

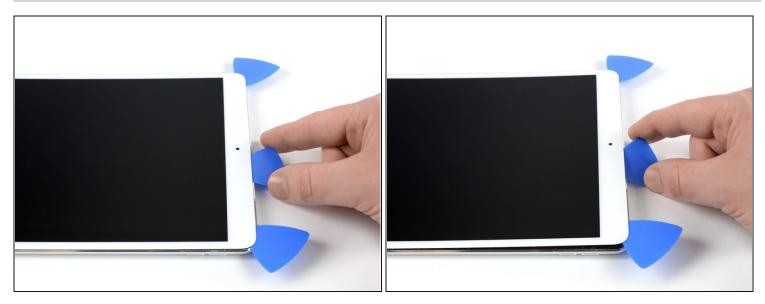
⚠ The front-facing camera is located right in the center of the iPad's top edge and can be damaged if the pick is inserted too far. Only insert the tip of the opening pick when cutting near the camera.



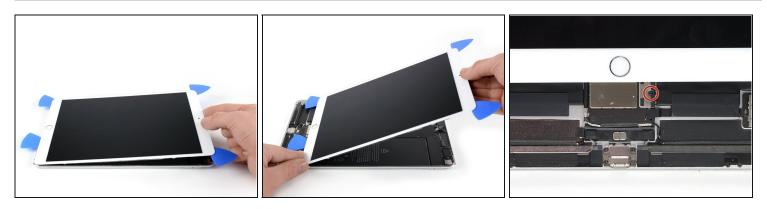




- Apply heat to the final, right edge of the iPad for about two minutes, or until it's slightly too hot to touch comfortably.
- Insert a fourth opening pick at the top right corner of the iPad.
- Slide the opening pick down to the bottom right corner to cut the adhesive.
- Slide the opening pick around 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.



- 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.



• 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.

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



- Remove the 1.9 mm Phillips screw that secures the battery power connector.
- (i) 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

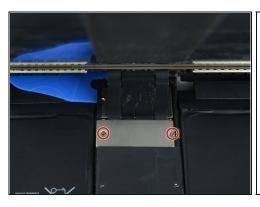


- (i) These photos show what the battery connector looks like underneath the logic board. Use these photos as a reference while you safely disconnect the battery.
- (i) Notice that the battery connector has cantilever springs on the logic board that press against the battery contact pads. Since both 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.

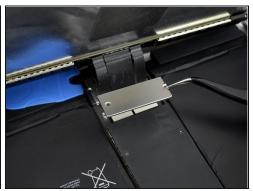
Step 12 — Disconnect the battery



- ⚠ 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.
 - i 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.



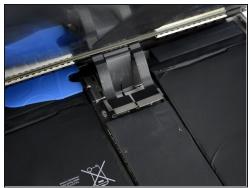




- Slowly lift the display from its top edge, being careful not to strain the attached ribbon cables.
- Remove the two 1.3 mm Phillips screws securing the display connector cover bracket.
- ② You may need to angle the driver slightly in order to avoid straining the ribbon cables.
- Remove the display connector cover bracket.







- Use a spudger to disconnect the two visible display flex connectors by gently prying them straight up from their sockets.
 - (i) To re-attach <u>press connectors</u> 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.



- ② Underneath, you'll find two additional display cable connectors.
- Use your spudger to gently pry them up and disconnect them.



- 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 <u>pre-cut adhesive</u> strips to the back of the display using our <u>display</u> adhesive application guide before sealing it up.

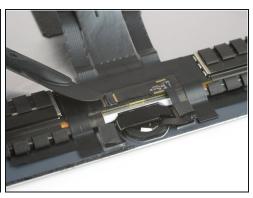
Step 17 — Home Button



 Use your <u>iOpener</u> or hair dryer for about a minute to heat the home button area in order to soften the adhesive securing the home button components.

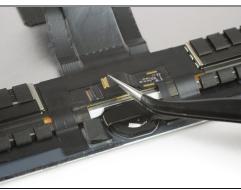


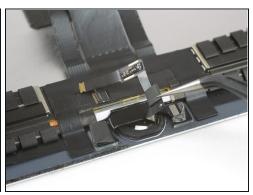




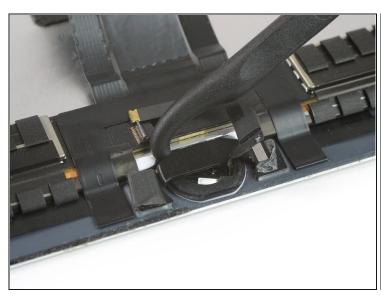
- Use a pair of tweezers to peel off any tape covering the ZIF connector above the home button.
- Use the tip of a spudger, an opening tool, or your fingernail to flip up the small, hinged locking flap on the home button cable <u>ZIF connector</u>.

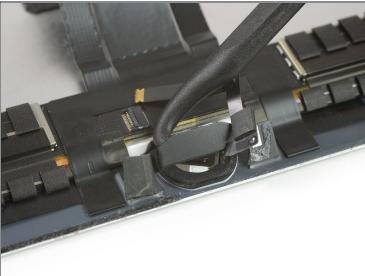






- Use a pair of tweezers to pull the home button flex cable straight out of the ZIF connector.
- Gently peel the flex cable off the home button cover and fold it a little bit upwards.
 - ⚠ If needed, apply more heat to soften the adhesive under the flex cable and make it easier to remove safely. The cable is very fragile. If it gets damaged, or if the home button has to be replaced, Touch ID will no longer function.





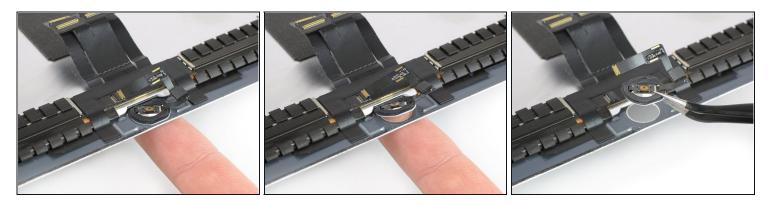
- Gently pry off the home button bracket by inserting the hook of a halberd spudger or the flat edge of a regular spudger under the bracket and gently pry it towards the bottom edge of the iPad.
- (i) The hot-melt glue holding this bracket in place can be stubborn. Apply heat to make it easier to separate, and/or *very carefully* insert a razor blade under the bracket to separate it.







- Lift the home button bracket starting from the left side.
- Carefully pull it upwards toward the display, making sure not to damage the home button cable.
- During reassembly, after installing the home button, you'll need to glue this bracket into place to secure it.
 - Scrape off as much of the old adhesive residue as you can, then clean it with acetone or high-concentration (90% or greater) isopropyl alcohol.
 - Secure the bracket with a <u>high bond glue</u>, superglue, or <u>high-strength double-sided</u> <u>tape</u>. Make sure the bracket is aligned correctly before allowing your adhesive to cure, or the home button will not click when pressed.
 - (i) It may be necessary to use <u>vise clamps</u> to hold the home button bracket in place as the adhesive cures.



- Use the tip of your finger to press the home button and gently push it through from the front side of the display.
- Remove the home button.
- ⚠ If your screen was cracked, take special care to remove any small glass fragments from the home button before transferring it.
- During reassembly, transfer over the home button gasket to the new screen or home button assembly.
- If possible, turn on your iPad and test your repair before installing new adhesive and resealing it.

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 this guide in reverse order.

Take your e-waste to an R2 or e-Stewards certified recycler.

Repair didn't go as planned? Check out our <u>Answers community</u> for troubleshooting help.