

iPad Pro 12.9" 3rd Gen Screen Replacement

Use this guide to replace the screen in your...

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INTRODUCTION

Use this guide to replace the screen in your iPad Pro 12.9" 3rd Gen.

The screen consists of the display and the top sensor assembly. If you don't transfer the top sensor assembly, you will lose Face ID and True Tone.

This guide was written using a WiFi + Cellular version (Model A2014). If you have a different model, there might be some slight visual discrepancies, but they won't affect the procedure.

TOOLS:

iOpener (1)

Suction Handle (1)

iFixit Opening Picks (Set of 6) (1)

Phillips #00 Screwdriver (1)

FixMat (1)

Heat Gun (1)

Anti-Clamp (1)

ESD Safe Blunt Nose Tweezers (1)

Spudger (1)

Coffee Filters or a lint-free cloth (1)

Isopropyl Alcohol (90% or Greater) (1)

Tweezers (1)

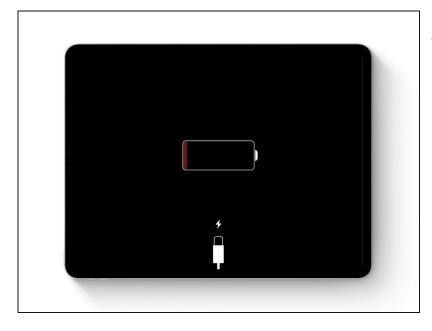
iFixit Opening Tool (1)

E6000 Adhesive Glue (1)

PARTS:

iPad Pro 12.9" (3rd/4th Gen) Screen (1) iPad Pro 12.9" (2018/2020) Adhesive Strips (1)

Step 1 — Prepare your iPad for disassembly



- Allow your iPad's battery to fully drain before starting this repair. A charged battery may catch fire if damaged during the repair.
- Unplug any cables and fully shut down your iPad.

Step 2 — Heat the right edge



- Apply a <u>heated iOpener</u> to the right edge of the screen for two minutes.
 - (i) A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the iPad—the screen and internal battery are susceptible to heat damage.

Step 3 — Anti-Clamp instructions







- (i) 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.
 - i For complete instructions on how to use the Anti-Clamp, check out this guide.
- Pull the blue handle backward 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 right 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.
 - (i) 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 right edge of the iPad.
 - i 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.
 - (i) 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







- (i) If your screen is badly cracked, <u>covering it with a layer of clear packing tape</u> may allow the suction cup to adhere. Alternatively, <u>very strong tape</u> may be used instead of the suction cup. If all else fails, you can superglue the suction cup to the broken screen.
- Apply a suction handle to the screen as close to the center of the right edge as possible.
- Pull up on the suction handle with a strong, steady force to create a small gap between the frame and screen.
 - ⚠ The large screen is very fragile. Only create a gap big enough to insert an opening pick.
 - (i) If you're having trouble making a gap, reapply a heated iOpener to the right edge for two minutes.
- Insert an opening pick into the gap.
 - ⚠ Don't insert the pick more than 5 mm to avoid damaging the screen.

Step 7 — Right edge information



- ⚠ There are two **2 cm-long** magnets along the right edge of the screen. Don't insert your opening pick more than **2 mm** to avoid damaging the screen in these locations:
 - The first magnet begins about **3 cm** from the top of the iPad.
 - The second magnet begins about **3 cm** from the bottom of the iPad.

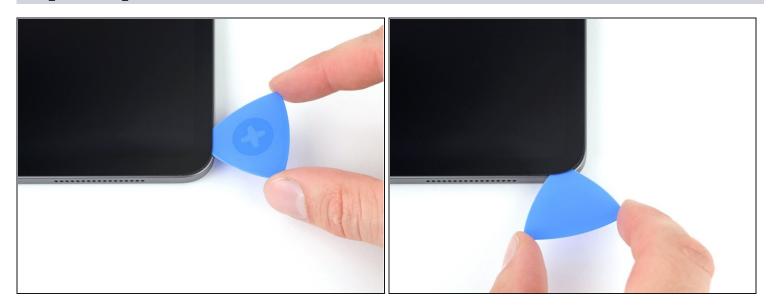
⚠ Everywhere else, don't insert your opening pick more than **5 mm**.

Step 8 — Separate the right adhesive



- Slide your opening pick along the right edge of the screen to separate the adhesive.
 - ⚠ Angle your pick downward and insert up to a **2 mm** depth near the magnet cutouts and **5 mm** everywhere else.
- Leave the pick inserted in the bottom right corner before continuing.

Step 9 — Separate the corner adhesive



- Slide your opening pick around the bottom right corner of the screen to separate the adhesive.
- Leave your pick in the bottom right corner to prevent the adhesive from resealing.

Step 10 — Heat the bottom edge



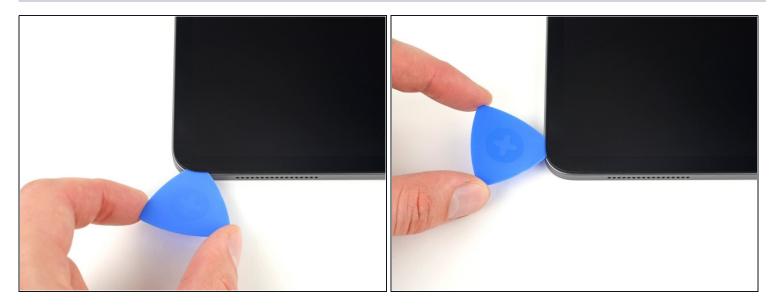
 Apply a heated iOpener to the bottom edge of the screen for two minutes.

Step 11 — Separate the bottom adhesive



- Insert a second opening pick under the bottom right corner of the screen.
 Don't insert your opening pick more than 5 mm.
- Slide your pick to the bottom left corner to separate the bottom adhesive.

Step 12 — Slice the corner adhesive



- Rotate your opening pick around the bottom left corner of the screen.
- Leave your pick in the bottom left corner to prevent the adhesive from resealing.

Step 13 — Heat the left edge



 Apply a heated iOpener to the left edge of the screen for two minutes.

Step 14 — Left edge information



- There are three cutouts along the left edge of the screen where the adhesive is very thin. Don't insert your opening pick more than **2 mm** to avoid damaging the screen at these cutouts:
 - The upper cutout begins **4 cm** from the top of the frame and is **3 cm** long.
 - The middle cutout begins 12 cm from the top of the frame and is 3 cm long.
 - The bottom cutout is **4 cm** from the bottom of the frame and is **3 cm** long.

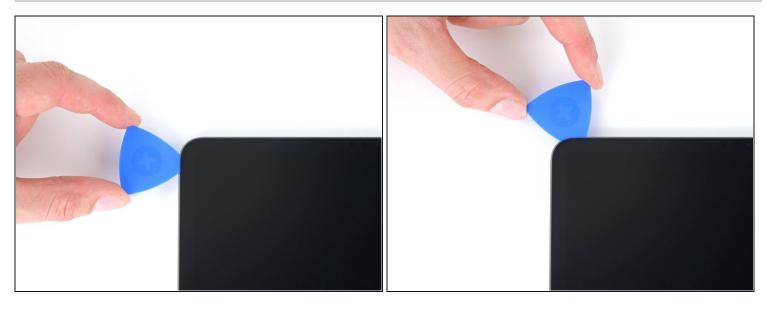
⚠ Everywhere else, don't insert your opening pick more than **5 mm**.

Step 15 — Slice the left adhesive



- Insert a third opening pick under the bottom left corner of the screen.
- Slide your pick to the top left corner to slice the left adhesive, making sure to avoid the cutouts shown in the previous step.
- Leave the pick inserted in the top left corner before continuing.

Step 16 — Slice the corner adhesive



- Slide your opening pick around the top left corner of the screen.
- Leave your pick in the top left corner to prevent the adhesive from resealing.

Step 17 — Heat the top edge



 Apply a heated iOpener to the top edge of the screen for two minutes.

Step 18 — Top edge information



- While the top edge adhesive softens, note the following:
 - There are two ambient light sensors near the corners. Don't insert your pick more than 1 mm here.
 - The front-facing camera and additional sensors are in the center of the top edge.
 Don't insert your pick here—there is less than 1 mm of adhesive and you may damage the components.

⚠ For everywhere else, don't insert your pick more than **5 mm** to avoid damaging the screen.

Step 19 — Separate the top adhesive



- Slide your opening pick 9 cm toward the top right edge, stopping just before the camera assembly.
 - 🛆 If you slide any farther, you risk damaging the camera's sensors.
- Leave your pick inserted before continuing.

Step 20



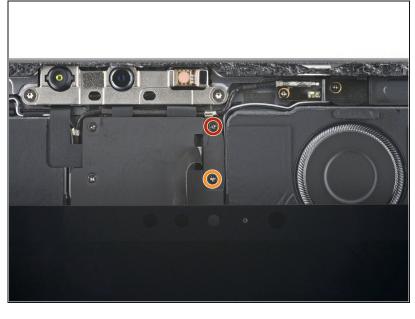
- Insert a new opening pick on the other side of the camera assembly, 4 cm from the previous pick.
- Slide your pick to the top right corner to slice the remaining adhesive.

Step 21 — Reposition the screen



- ⚠ Don't fully remove the screen, as it's attached to the frame by several cables.
- Grab two opposing corners of the screen and lift up to separate it from the frame.
 - (i) If the screen feels stuck, slide your opening picks around the perimeter to separate any remaining adhesive. Pay attention to sensitive areas shown in previous steps.
- Shift the screen towards the bottom right corner of the frame until the ribbon cable near the top edge is uncovered.

Step 22 — Unfasten the upper cable shield



- i Throughout this guide, keep track of each screw and reinstall it exactly where it came from.
 - Use a Phillips screwdriver to remove the two screws securing the upper cable shield:
 - One 2.0 mm-long screw
 - One 1.8 mm-long screw
- During reassembly, this is a good point to power on your iPad and test all functions before sealing it up. Be sure to power your iPad back down before you continue working.

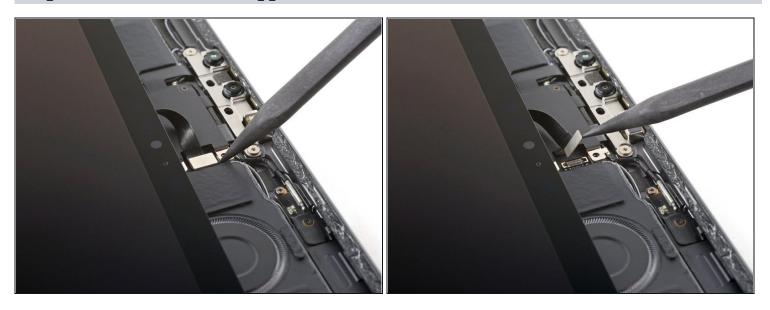
Step 23 — Remove the upper cable shield





• Use <u>tweezers</u>, or your fingers, to grab and remove the upper cable shield.

Step 24 — Disconnect the upper sensors



- Use the tip of a spudger to pry up and disconnect the upper sensors press connector.
- (i) To re-attach <u>press connectors</u>, carefully align and press down on one side until it clicks into place, then repeat on the other side. Don't press down on the middle. If the connector is misaligned, the pins can bend and cause permanent damage.

Step 25 — Reposition the screen



- Grip the right edge of the screen and open it like a book.
 Don't pull up on the screen—the display cables are still attached.
- Lay the screen down over the left edge of the iPad.
 Be careful not to strain the display cables.

Step 26 — Unfasten the display cable bracket



- Use a Phillips screwdriver to remove the five screws securing the display cable bracket:
 - Four 1.1 mm-long screws
 - One 2.0 mm-long screw

Step 27 — Remove the display cable bracket



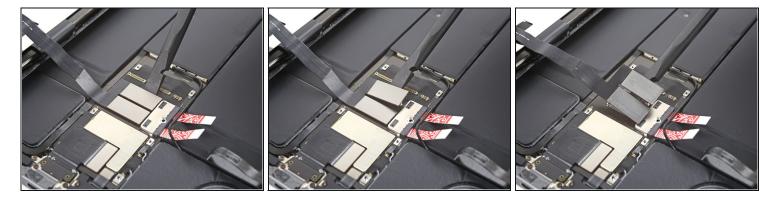
• Use <u>tweezers</u>, or your fingers, to remove the display cable bracket.

Step 28 — Disconnect the top display cables



• Use a spudger to pry up and disconnect the two top display cable press connectors.

Step 29 — Disconnect the bottom display cables



• Use a spudger to pry up and disconnect the two bottom display cable press connectors.

${\bf Step~30-Remove~the~screen}$



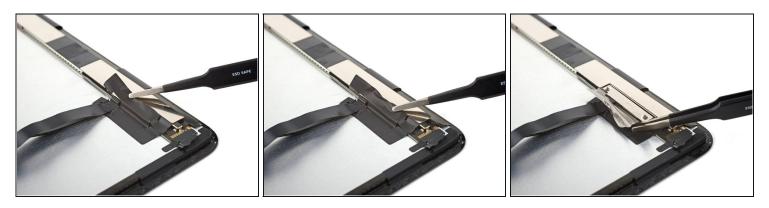
• Remove the screen.

Step 31 — Peel the display bracket tape



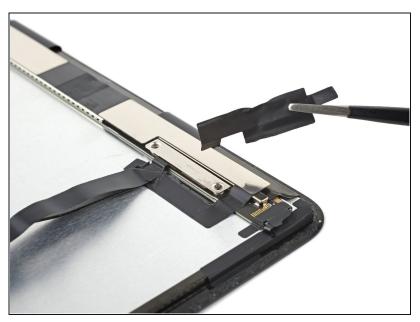
• Peel back the tape from the display cable bracket located at the bottom right of the screen.

Step 32



• Continue peeling the tape along its outer edge until the bracket is fully exposed.

Step 33



- Remove the tape.
- Set the tape aside. You'll use it during reassembly.

Step 34 — Unfasten the display cable bracket



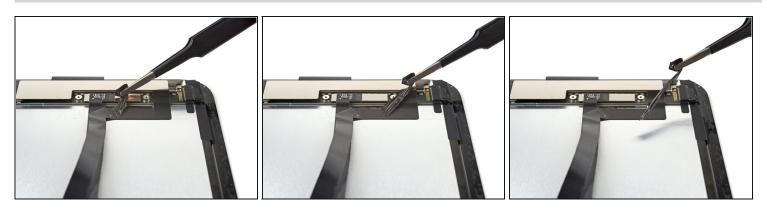
 Use a Phillips screwdriver to remove the two 1.3 mm-long screws securing the display cable bracket.

Step 35 — Remove the display cable bracket



 Remove the display cable bracket.

Step 36 — Peel the remaining tape



• Peel off the tape connecting the display and digitizer cables.

Step 37 — Disconnect the display cable



- Use a spudger to pry up and disconnect the bottom display cable press connector on the screen.
- Use <u>tweezers</u> to bend the bottom press connector away from the screen—exposing the top press connector.

Step 38



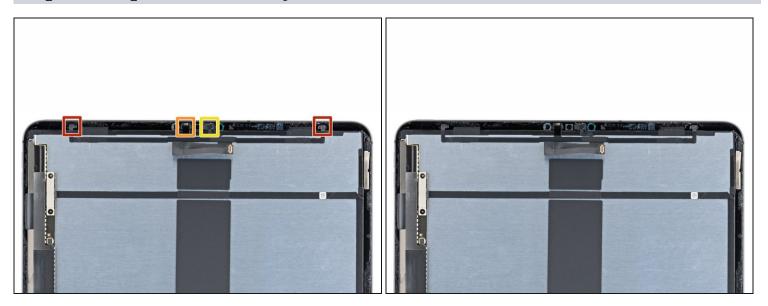
• Use a spudger to pry up and disconnect the top display cable press connector on the screen.

Step 39 — Remove the display cable



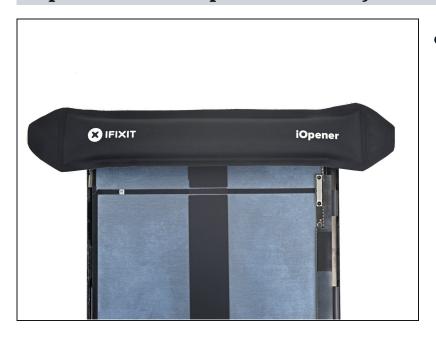
- *i* The display cable is lightly adhered to the screen.
- Use your fingers to peel the display cable from the screen.
- Remove the display cable.
- Set the cable aside. You'll use it during reassembly.

Step 40 — Top sensor assembly information



- The top sensor assembly is composed of four sensors:
 - Two ambient light sensors
 - One proximity sensor
 - One microphone
- ② You'll need to separate each sensor from the screen before removing the entire assembly.

Step 41 — Heat the top sensor assembly



Heat an iOpener and apply it to the top of the screen for two minutes.

Step 42 — Separate the ambient light sensors



- Insert one arm of your angled tweezers between the ambient light sensor and the screen.
- Pry up to separate the sensor from the screen.
 - (i) This might take significant force.
- Repeat this procedure for the other ambient light sensor.

Step 43 — Separate the proximity sensor



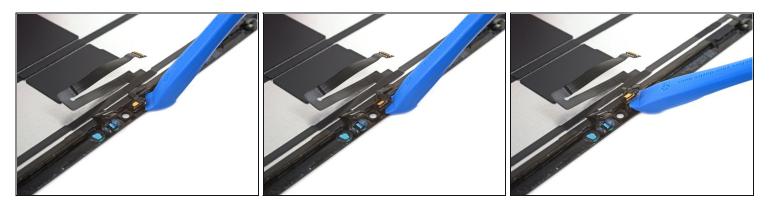
- ⚠ Be very careful during this step, as the sensor cable can tear. Work slowly and apply more heat if you encounter resistance.
- Insert one arm of your angled tweezers between the proximity sensor cable and the screen.
- Slide the tweezers toward the screen while prying to separate the sensor from the screen.
 - ① This might take significant force and multiple iOpener heating cycles.

Step 44 — Peel the tape



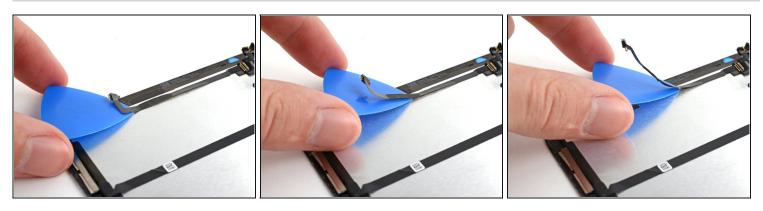
- Peel off any tape covering the microphone.
- Set the tape aside. You'll use it during reassembly.

Step 45 — Separate the microphone



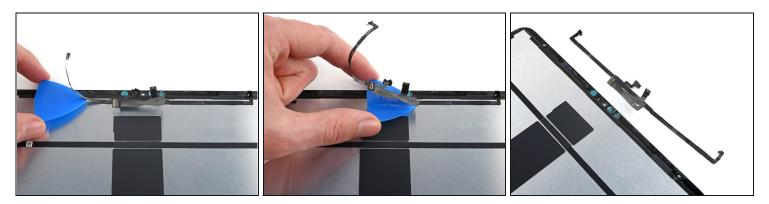
- Slide an opening tool under the microphone to separate its adhesive.
- Pry up to separate the microphone from the screen.

Step 46 — Remove the top sensor assembly



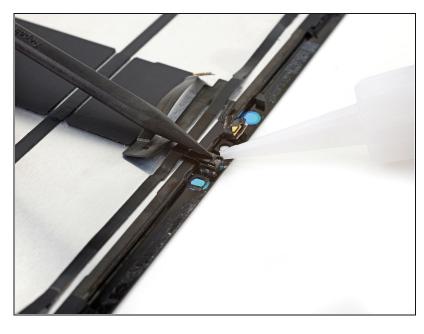
• Slide an opening pick under the top sensor assembly cable to separate it from the screen.

Step 47



- Continue sliding your opening pick along the top sensor assembly until it's completely separated from the screen.
- Remove the top sensor assembly.

Step 48 — Reassembly information



- During reassembly, perform the following:
 - Align the top sensor assembly on your replacement screen.
 - Use <u>Tesa tape</u>, or similar double-sided tape, to secure the cables to the screen.
- Use <u>E6000 adhesive</u>, or similar adhesive, to secure the sensors to their cutouts on the screen.

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

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 you install it.

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

Repair didn't go as planned? Try some <u>basic troubleshooting</u>, or ask our <u>iPad 12.9" 3rd Generation Answers community</u> for help.