

Huawei P20 Pro Screen Replacement

This guide shows how to remove or replace a defective or cracked OLED screen and digitizer in the Huawei P20 Pro.

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INTRODUCTION

Use this guide to replace a defective or cracked OLED screen and digitizer in the Huawei P20 Pro.

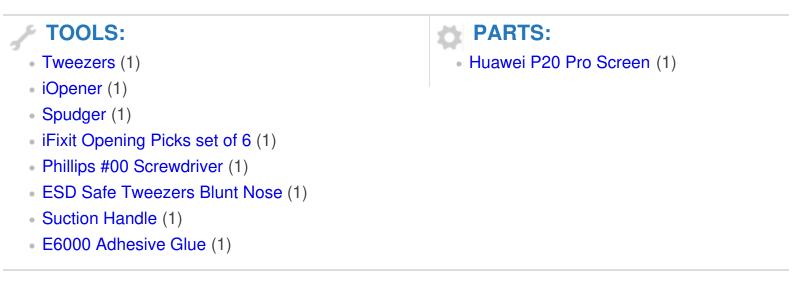
Note: This guide instructs you to replace only the display while leaving the original frame and motherboard in place. However, some replacement screens for this phone come pre-installed in a new frame (a.k.a. chassis), which requires a very different procedure—transplanting all your phone's internals. Make sure you have the correct part before starting this guide.

Opening the Huawei P20 Pro will **damage the waterproof seals** on the device. If you do not replace the adhesive seals, your phone will **function normally** but will **lose its water protection**.

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

Before disassembling your phone, **discharge the battery below 25%**. <u>If your battery is swollen</u>, do not heat your phone. Swollen batteries can be very dangerous, so wear eye protection and exercise with caution, or take it to a professional if you're not sure how to proceed.

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



Step 1 — Rear Glass Replacement



- Switch off your phone.
- Use an iOpener to loosen the adhesive beneath the rear glass. Apply the iOpener for at least two minutes. You might want to repeat this step several times during the back cover removal.
- The adhesive of the Huawei P20 Pro is of moderate strength, however a hair dryer, heat gun, or hot plate may also be used if you aren't able to open the device with the iOpener. Be careful not to overheat the phone —the OLED display and internal battery are both susceptible to heat damage.



- *(i)* If the phone's rear glass is cracked, a suction cup may not stick very well. Try <u>lifting it with strong</u> <u>tape</u>, or superglue the suction cup in place and allow it to cure so you can proceed.
- Press a suction cup onto the rear glass close to the bottom edge of the phone.
- Lift the bottom edge with the suction cup, opening a slight gap between the rear glass and the frame.
- Insert an opening pick in the gap and slide it to the bottom right corner. Leave it there to prevent the adhesive from resealing.



 Insert a second opening pick and slide it to the bottom left corner. Leave it there to prevent the adhesive from resealing.

Step 4



- Insert a third opening pick at the bottom left corner.
- Slide the tip of the opening pick along the left edge of the phone to cut the adhesive.
- Leave the opening pick in the top left corner of the phone to prevent the adhesive from resealing.



- (i) In case you're having trouble to cut the adhesive, reapply the iOpener for another minute to loosen it.
- Insert a fourth opening pick at the top left corner of the phone.
- Slide the opening pick along the upper edge of the phone to cut the adhesive beneath the rear glass and leave it in the top right corner.



- Insert a fifth opening pick at the top right corner of the rear glass.
- Slide the opening pick along the right edge of the phone to cut the remaining adhesive.

Don't open the phone all the way yet. The proximity sensor flex cable is still connected to the motherboard.

Step 7



• Carefully lift the rear glass until you can reach the connector of the proximity sensor flex cable next to the rear camera assembly.



• Use the flat end of a spudger to pry up and disconnect the proximity sensor flex cable.

Step 9



- Remove the rear glass.
- Before installing fresh adhesive and reassembly, remove any remaining adhesive from the phone, and clean the glued areas with isopropyl alcohol and a lint-free cloth.

Step 10 — Motherboard Cover and NFC

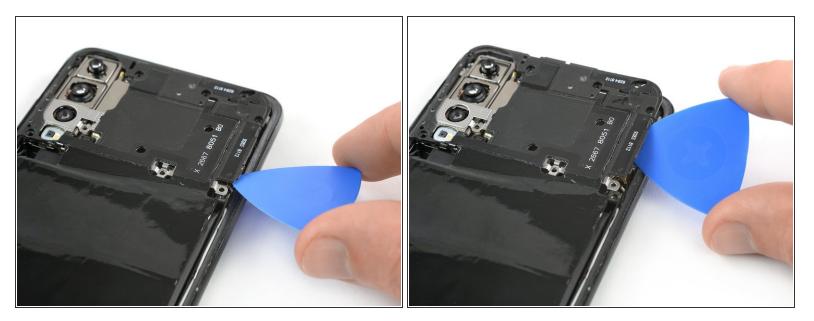


 Remove the nine Phillips #00 screws (3.4 mm length).

Step 11

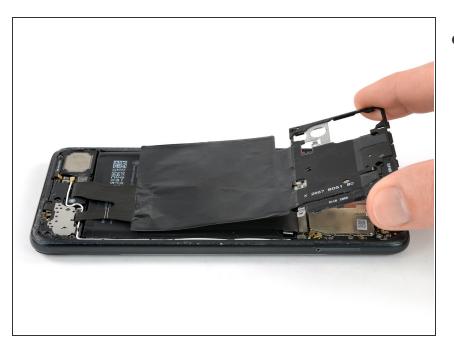


- Insert an opening pick under the left side of the motherboard cover that includes the NFC.
- Slide the opening pick towards the top left corner of the phone and twist it to pry the cover out of its plastic clamps.



 Repeat the previous process on the right side and twist the opening pick to pry up the motherboard cover.

Step 13



• Remove the motherboard cover.

Step 14 — Battery Disconnect



• Use the flat end of a spudger to pry up and disconnect the battery flex cable.

Step 15 — Interconnect Cable with Charging Port



Remove the five Phillips #00 screws (3.4 mm length).



- Use a pair of tweezers to disconnect the antenna cable.
- Use a pair of tweezers to pull the antenna cable out of its routing.

Step 17

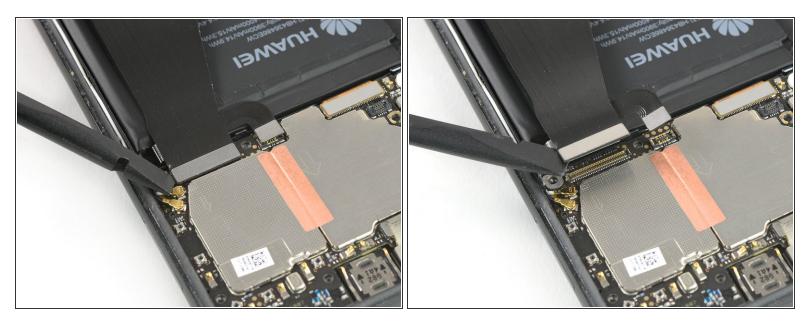


- Slide an opening pick under the left side of the daughterboard cover and start to pry it up until you can get a good grip.
- Remove the daughterboard cover.



 Remove the two Phillips #00 screws (3.4 mm length) on both sides of the USB C port.

Step 19



 Use the flat end of a spudger to pry up and disconnect the upper end of the interconnect and charging port flex cable from the motherboard.



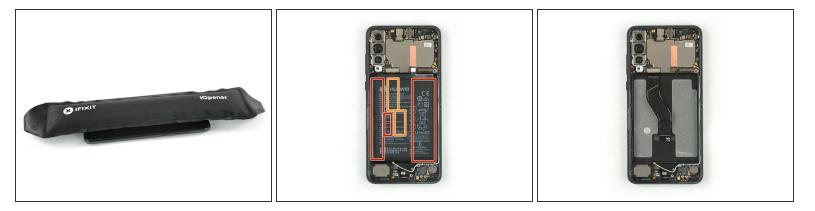
- Use the flat end of a spudger to pry up and disconnect the bottom end of the interconnect and charging port flex cable from the daughterboard.
- Use a pair of tweezers to move the antenna cable out of the way.

Step 21



- Use a pair of tweezers to pull the charging port out of its recess.
- Remove the interconnect cable including the charging port.

Step 22 — Battery



- <u>Use an iOpener</u> to loosen the adhesive beneath the battery. Apply the iOpener on the display for at least two minutes.
- In the following step, only apply the spudger in the areas marked in red, which is where the battery adhesive is located.
- Avoid the orange area where the display flex cable is running.



- In case you have trouble to pry up the battery the adhesive may not be loose enough. You can apply some isopropyl alcohol under each corner of the battery and allow it to penetrate for about two minutes to help weaken the adhesive.
- Try your best not to deform the battery during the following removal process. Soft-shell lithium-ion batteries can leak dangerous chemicals, catch fire, or even explode if damaged. Do not use excessive force or pry at the battery with metal tools.
- Insert the flat end of a spudger at the top left corner of the battery and start to pry it up.
- Work your way down the left side of the battery and loosen the adhesive with the spudger.

Step 24



- Insert the spudger at the top right corner of the battery and start to pry it up.
- Work your way down to the bottom end of the battery to loosen all the adhesive.



- Remove the battery.
- Do not reinstall a damaged or deformed battery, as doing so is a potential safety hazard. Replace it with a new battery.
- Before installing a new battery remove any remaining adhesive from the phone, and clean the glued areas with isopropyl alcohol and a lint-free cloth.
- Secure the new battery with pre-cut adhesive or double-sided adhesive tape. In order to position it correctly, apply the new adhesive into the phone at the places where the old adhesive was located, not directly onto the battery. Press the new battery firmly into place for 5-10 seconds.

Step 26 — Screen



 Use the flat end of a spudger to pry up and disconnect the display flex cable at the bottom left of the motherboard.



- <u>Prepare an iOpener</u> and apply it to the display for at least two minutes to loosen the adhesive beneath.
 - You may need to reheat and reapply the iOpener several times to get the phone warm enough on all sides. Follow the iOpener instructions to avoid overheating.
- *i* If your display glass is cracked, keep further breakage contained and prevent bodily harm during your repair by taping over the glass.
 - Lay overlapping strips of clear packing tape over the display until the whole face is covered.
 - This will keep glass shards contained and provide structural integrity when prying and lifting the display.
 - Wear safety glasses to protect your eyes from any glass shaken free during the repair.



- Once the screen is warm to the touch, apply a suction cup to the upper edge of the phone.
- Pull the suction cup upwards and insert an opening pick in the gap between the display glass and the plastic bezel. Start to cut the adhesive by sliding the opening pick to the top left corner.
 - Make sure you get in the right gap between the display and the plastic bezel. Do not pry between the bezel and the midframe.

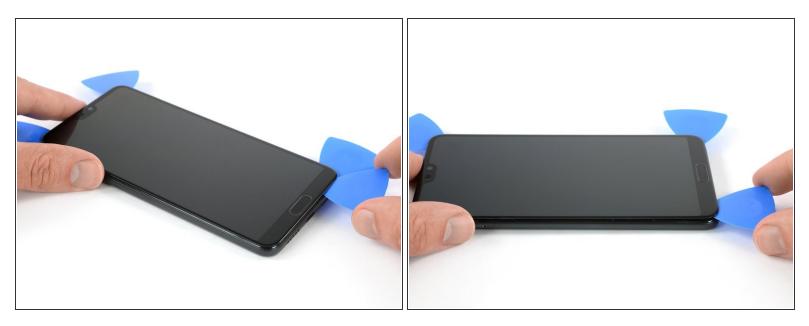
Step 29



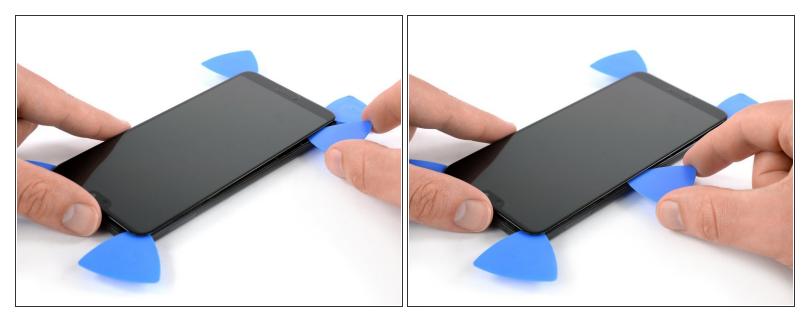
- Insert a second opening pick and slide it to the top right corner of the phone.
- Leave the picks in their places to prevent the adhesive from resealing.



- Insert a third opening pick at the top right corner of the phone.
- Slide the opening pick down to the bottom right corner to cut all the adhesive. Leave it at the bottom right corner to prevent the adhesive from resealing.
- (i) If cutting becomes too difficult, <u>reheat</u> and reapply the iOpener.



- Insert a fourth opening pick at the bottom right corner.
- Only slide the tip of the opening pick along the bottom edge of the phone to not damage the home button.
- Leave the opening pick in the bottom left corner to prevent the adhesive from resealing.



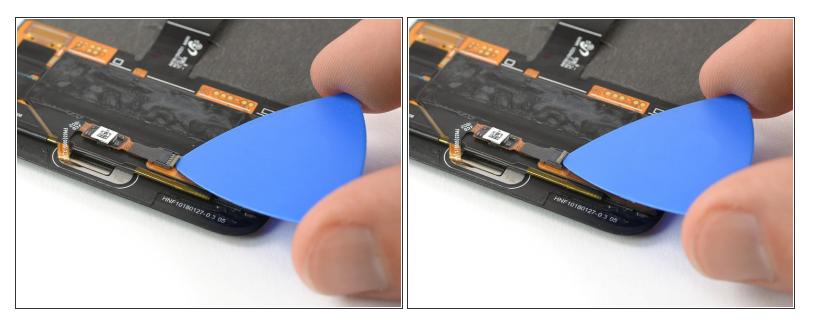
 Insert a fifth opening pick and slide it along the left edge of the phone to cut the remaining adhesive.

Try not to remove the display all the way yet, the display cable is still threaded through the frame and adhered on the opposite side.



- Use a pair of tweezers to peel the display flex cable free from the frame.
- Thread the display flex cable through the gap in the frame and remove the display.

Step 34 — Home button including the fingerprint sensor



• Use an opening pick to open the black flap of the home button ZIF connector.



• Use a pair of tweezers to gently pull the home button flex cable out of its ZIF connector.

Step 36



• <u>Use an iOpener</u> to loosen the adhesive beneath the home button.



- Apply a spudger to the backside of the home button and push it out towards the front until it comes off the screen.
- Carefully grab the home button and thread its flex cable through the gap in the screen.
- Remove the home button.
- Before installing a new display, it's important to remove all traces of the old adhesive from the frame, and clean the glued areas with isopropyl alcohol (>90%) and a lint-free cloth.

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.

The best way to secure the new screen is with adhesive glue. Apply the glue to the plastic frame, then carefully feed the display cable through its gap, align the screen and press it into place.

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

If possible, turn on your phone and test your repair before installing new adhesive and resealing the phone.

Take your e-waste to an <u>R2 or e-Stewards certified recycler</u>.

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