

Motorola Moto G6 Screen Replacement

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

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INTRODUCTION

Use this guide to replace the screen on your Moto G6, including the midframe which is glued to the display.

Before you begin, download the <u>Rescue and Smart Assistant</u> app to backup your device and diagnose whether your problem is software or hardware related.

Make sure your replacement part includes both the display and the midframe—this guide does not cover separating the display from the midframe.

This procedure involves removing the battery, which may be damaged during the removal process. **We strongly advise you do not reuse the battery** as doing so may pose a safety hazard. Replace it with a new battery.

TOOLS:

Phillips #00 Screwdriver (1)
SIM Card Eject Tool (1)
iFixit Opening Picks (Set of 6) (1)
iOpener (1)
Suction Handle (1)
Spudger (1)
Tweezers (1)

PARTS:

Tesa 61395 Tape (1)
Moto G6 Battery - Genuine (1)
Moto G6 Battery Adhesive Strips (1)
Moto G6 Screen - Genuine (1)

Step 1 — **Remove the SIM Card Tray**



- Insert a paperclip or SIM card eject tool into the small hole in the SIM card tray on the right side of the top edge of the phone.
- Press the tool into the hole to eject the tray.
- (i) This may require a significant amount of force.
- (i) The ejection mechanism is deeper in this phone than others and may require a longer SIM card eject tool. If your tool isn't long enough to reach the mechanism, try using an unfolded paperclip instead.



- Remove the SIM card tray.
- When reinserting the SIM card, ensure that it is in the proper orientation relative to the tray.

Step 3 — Remove the Rear Glass



A Power your phone off before you begin.

- If possible, drain the battery before disassembly. When the battery is charged, there's an increased risk of a dangerous thermal event if the battery is overheated or damaged during repairs.
- i If the rear glass is cracked, completely cover it with packing tape to contain the glass shards and avoid injury.
- Prepare an iOpener and heat the back of the phone along its bottom edge for about two minutes, or until it's slightly too hot to touch. This will help soften the adhesive securing the rear glass.
 - ② You may need to reheat and reapply the iOpener several times to get the phone warm enough. Follow the iOpener instructions to avoid overheating.
- A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone—the display and internal battery are both susceptible to heat damage.







- Apply a suction cup to the bottom edge of the rear glass.
- Pull up on the suction cup with firm, constant pressure to create a slight gap between the rear glass and the frame.
 - (i) If the glass is cracked, the suction cup may not stick. <u>Try lifting it with strong tape</u>, or superglue the suction cup in place and allow it to cure so you can proceed.
 - (i) This may require a significant amount of force, but you only need to open a very slight gap with the suction cup to insert your tool.
 - If you have trouble, apply more heat to further soften the adhesive, and try again. The adhesive cools quickly, so you may need to heat it repeatedly.
- Insert an opening pick into the gap you created under the rear glass.

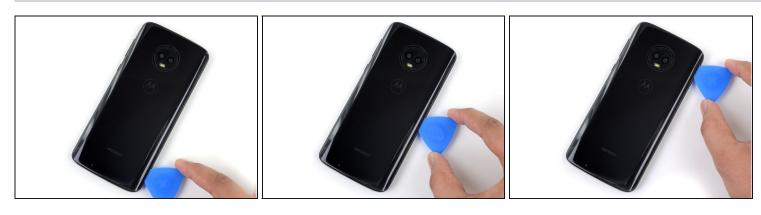


- Slide the pick all along the bottom edge of the phone to slice through the adhesive securing the rear glass.
- ⚠ Slow down and slice very carefully as you get to the corners. The curved part of the glass along the left and right edges can crack very easily if the pick pushes up against the curved glass.
- (i) After being cut, the adhesive will sometimes stick back together as it cools. To prevent this you can leave the pick in this edge after cutting, and continue the next steps with a new pick. Repeat this with each edge, leaving a pick and continuing with a new one.

Step 6



 Heat the right edge of the back of the phone to soften the adhesive underneath.



• Slide the pick along the right edge of the rear glass to separate the adhesive underneath.

Step 8



 Heat the top edge of the back of the phone to soften the rear glass adhesive.



• Slide the pick all along the top edge of the phone to slice through the adhesive securing the rear glass.

⚠ Slow down and slice very carefully as you get to the corners. The curved part of the glass along the left and right edges can crack very easily if the pick pushes up against the curved glass.

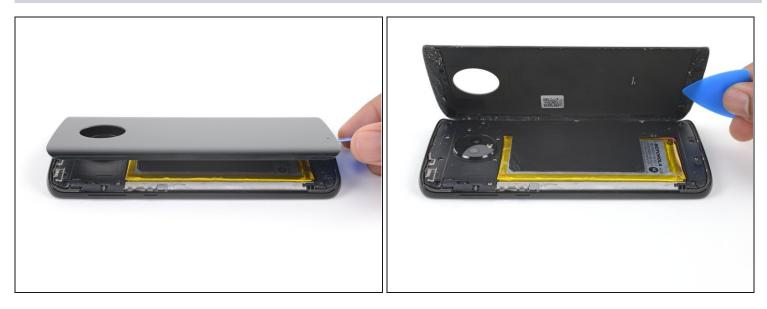
Step 10



 Heat the left edge of the back of the phone to soften the adhesive underneath.



Slide a pick along the left edge of the phone to slice through the rear glass adhesive.



- If the glass remains stuck, re-heat and slice the adhesive repeatedly as needed.
- Lift the rear glass carefully, making sure it's fully separated from any adhesive.
- Remove the rear glass.
- During reassembly, pause here to <u>replace the adhesive on the rear glass</u> using a precut adhesive card or high-strength double-sided adhesive tape, such as <u>Tesa 61395</u>.
- After closing your device back up during reassembly, stack something heavy, like a textbook or two, on top of the device for 30-60 minutes. This ensures a strong adhesive bond.

Step 13 — Remove the Battery Tape





- Use a pair of tweezers to carefully peel up the black tape covering the battery.
- Remove the tape.
 - (i) If possible, keep the tape intact so it can be reused during reassembly.

Step 14 — Remove the Plastic Cover



- Use a Phillips driver to remove seventeen screws securing the plastic cover:
 - Eleven grey 3 mm-long screws
 - Five black 2.5 mm-long screws
 - One silver 3.5 mm-long screw







- Insert the pointed end of a spudger into the notch at the top left edge of the plastic cover.
- Pry up with the spudger to lift the upper edge of the cover and release the clips holding the cover down.
- Remove the plastic cover.

Step 16 — Disconnect the Battery





- Use the pointed end of a spudger to pry up the battery connector and disconnect it.
- During reassembly, this is a good point to power on your phone and test all functions before sealing it up. Be sure to power your phone back down completely before you continue working.

Step 17 — Soften the Battery Adhesive



- Prepare an iOpener and apply it to the right half of the screen for at least two minutes, in order to soften the battery adhesive underneath. Reheat and reapply the iOpener as needed.
- ⚠ Be careful not to overheat the battery or display with the iOpener. If you notice the battery swelling at all, immediately remove any heat and let the battery cool down.
- (i) Alternatively, apply some isopropyl alcohol under each corner of the battery and allow it to penetrate for several minutes to help weaken the adhesive.

Step 18 — Remove the Battery

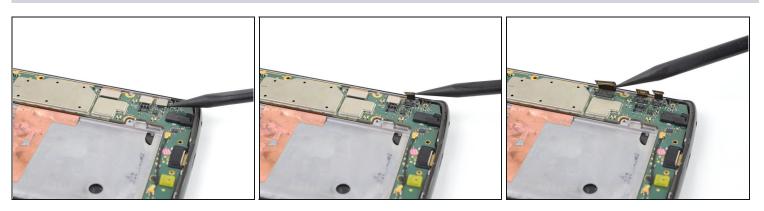






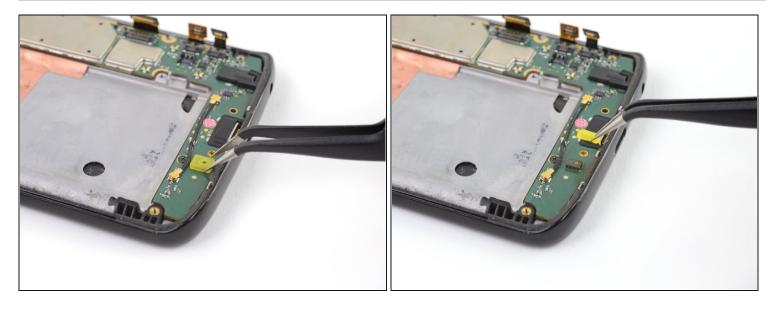
- Use an opening pick to steadily pry the battery up, starting from the outer edge of the battery.
 - ② You may need to reheat and reapply the iOpener repeatedly to further soften the adhesive. The adhesive is tough and it may take a few tries to get the pick started under the battery. If the battery begins bend out of shape, apply more heat or isopropyl alcohol and pry slower.
- ⚠ Try your best not to deform the battery during this 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.
- Remove the battery.
- A Reinstalling a damaged or deformed battery is a safety hazard. Replace it with a new battery.
- During reassembly, remove any remaining tape under the battery and clean any residual adhesive with isopropyl alcohol. If you are reusing the screen assembly, apply new precut battery adhesive or high-strength double-sided tape to the battery well before pressing the new battery into place.

Step 19 — Disconnect the Motherboard

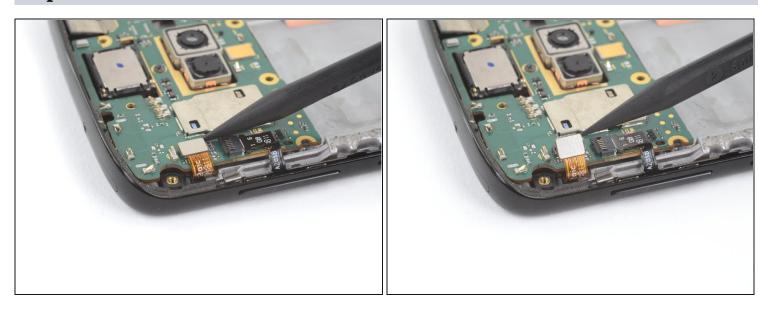


• Use the pointed edge of a spudger to pry up and disconnect the three ribbon cables on the bottom right edge of the motherboard.

Step 20



• Use a pair of <u>tweezers</u> to remove the yellow microphone gasket.



• Use the pointed end of a spudger to pry up and disconnect the front-facing sensor cable on the top left edge of the motherboard.



- Use the pointed end of a spudger to pry up the locking tab on the button cable's **ZIF** connector.
- Use a pair of tweezers to slide the button cable out of its socket.

Step 23 — Remove the Motherboard



 Use a Phillips #000 driver to remove two 2.5 mm-long screws securing the motherboard.



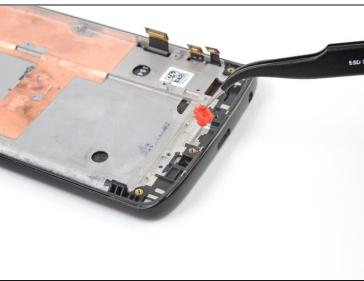




- Use the pointed end of a spudger pry up the top edge of the motherboard, while keeping it clear of any cables or connectors.
- Slide the motherboard toward the top edge, until it is free, and remove it.
- Before reinstalling the motherboard, ensure the <u>headphone jack gasket</u> is properly seated. Then insert the motherboard gasket side first, insert the front-facing camera into it's recess, and lay the top edge of the motherboard into place.

Step 25 — Remove the Remaining Elements from the Screen Assembly

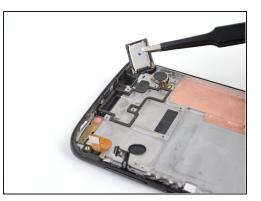




- (i) The following steps show how to transfer the remaining components from your old screen to your replacement part.
- Use tweezers to lift the red microphone gasket out of its recess in the frame.







- Use the pointed end of a spudger to pry up one corner of the earpiece speaker.
- Continue lifting the speaker until it is completely separated from its adhesive.
- Remove the earpiece speaker.
- During reassembly, make sure to install the speaker with its spring contacts on the left side, so that they match up with the contacts on the underside of the upper plastic cover.

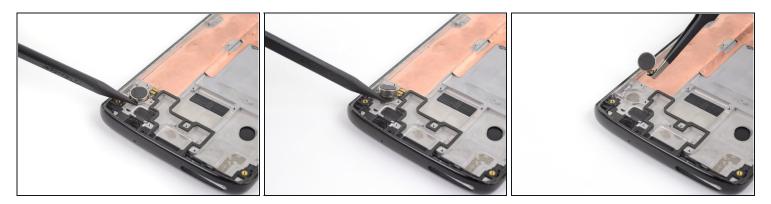


- Gently slide an opening pick under the front-facing sensor cable to slice through the adhesive holding it to the midframe.
- Use the opening pick to carefully pry the front-facing sensor array away from the midframe.

Step 28



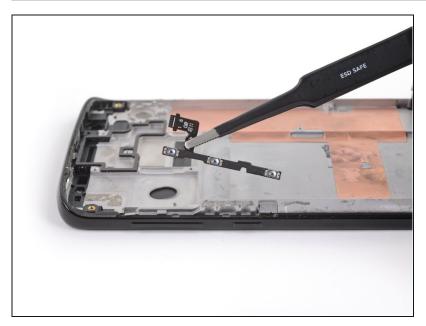
• Remove the front-facing sensor array.



- Use the point of a spudger to pry the vibrator motor and its cable up from the adhesive securing them to the midframe.
 - (i) The cable may be very firmly glued to the midframe. If the spudger is unable to pry it up, try using sharp tool, like a utility knife, to cut the adhesive and pry it out safely. Using excessive force with the spudger may damage the cable.
- Remove the vibrator motor.



- Insert an opening pick between the power and volume button circuit board and the frame.
- Slide the pick behind the circuit board, across the whole board, to separate it from the adhesive securing it to the frame.
 - (i) If it's difficult to slide the pick behind the circuit board, try heating the circuit board to soften its adhesive.



 Use tweezers to carefully pull the volume and power button circuit board out of its slot. If it's difficult to remove, make sure you've sliced through all its adhesive.

Step 32



• Use tweezers to lift the two silver retention brackets flanking either end of the volume and power buttons straight up and remove them from the phone.







- Use the point of a spudger to push against the back of the volume button, behind its upper end, so that the upper end of the button slides out of the phone.
- Use tweezers to gently remove the volume button, pulling up from the upper end.
- When reinstalling the volume button, insert the lower end first, then the rest of the button.







- Use the point of a spudger to push against the back of the power button, behind its lower end, so that the lower end of the button slides out of the phone.
- Use tweezers to gently remove the power button, pulling down from the lower end.
- When reinstalling the power button, insert the upper end first, then the rest of the button.



- Only the screen assembly remains.
- Compare your new replacement part to the original part—you may need to transfer additional 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.

For optimal performance, after completing this guide, <u>calibrate</u> your newly installed battery.

Repair didn't go as planned? Try some <u>basic troubleshooting</u>, or ask our <u>Motorola Moto G6</u> <u>Answers community</u> for help.