

# **Nintendo Switch Digitizer Replacement**

Follow this guide to replace a damaged or...

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# INTRODUCTION

Follow this guide to replace a damaged or faulty digitizer on the Nintendo Switch game console.

The Switch uses JIS screws, but you can use a Phillips screwdriver in a pinch. Be very careful not to strip the screws. iFixit's Phillips bits are designed to be cross-compatible with JIS-style screws.

**Note:** If the screen stopped working, you may just need to <u>replace the LCD panel</u>, rather than the digitizer.

**Note:** When you remove the shield plate, you'll need to replace the thermal compound between the plate and the heatsink. Since normal thermal paste isn't designed to bridge large gaps, the closest replacement is K5 Pro viscous thermal paste. You will, however, need regular replacement thermal paste for the CPU.

You can complete this repair without removing the heat sink and the game card reader, but it makes disconnecting and reconnecting the LCD panel ribbon cable much more difficult. Keep this in mind when you perform this repair.

**Note:** This guide, and the part we sell, are compatible with the original Nintendo Switch model released in 2017, as well as the newer refreshed model released in 2019 (model numbers HAC-001 and HAC-001(-01), respectively).



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Tri-point Y00 Screwdriver (1)
JIS Driver Set (1)
Tweezers (1)
Spudger (1)
Microfiber Cleaning Cloths (1)
Isopropyl Alcohol (1)
iFixit Opening Tool (1)
iOpener (1)
iFixit Opening Picks (Set of 6) (1)
Suction Handle (1)
Arctic Silver Thermal Paste (1)
K5-PRO Viscous Thermal Paste (1)
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Nintendo Switch Digitizer Front Panel (1)

#### Step 1 — Release the Joy Con controller locking tabs



*i* Before you begin this repair, make sure the device is completely powered off.

- Press and hold down the small round button on the back of the Joy Con controller.
- While you hold down the button, slide the controller upward.

#### Step 2 — Remove the Joy Con controllers



• Continue sliding the Joy Con upward until it's completely removed from the console.

(i) Repeat this same process for the other Joy Con.

## Step 3 — Remove the back-side screws



- Use a Y00 screwdriver to remove the four 6.3 mm-long screws securing the rear panel.
- *i* Throughout this repair, <u>keep track of</u> <u>each screw</u> and make sure it goes back exactly where it came from.

#### Step 4 — Remove the top and bottom screws



- Use a JIS 000 driver or an official iFixit PH 000 driver to remove the following screws securing the rear panel:
  - One 2.5 mm-long screw on the top edge of the device
  - Two 2.5 mm-long screws on the bottom edge of the device
  - *i* To prevent these tight screws from <u>stripping</u>, apply firm downward force, work slowly and try another JIS 000 or PH 000 driver if the screws won't come out.





 Use a JIS 000 screwdriver or an official iFixit PH 000 driver to remove the two 3.8 mm center screws on the sides of the device (one on each side).



- Use your finger to flip up the kickstand on the back of the device.
  - (i) If there's a microSD card in the microSD card slot, remove it now before you continue to the next step.

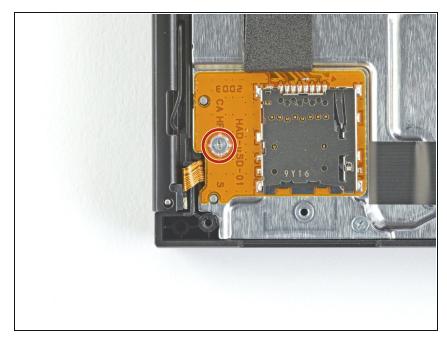


- Use a JIS 000 screwdriver or an official iFixit PH 000 driver to remove the 1.6 mm screw in the kickstand well.
- Close the kickstand.

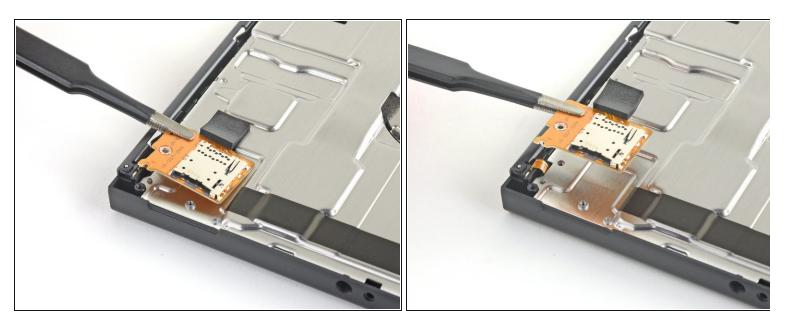


- Open the game card cartridge flap.
  - (i) The game card cartridge flap attaches to the other half of the plastic shell, preventing you from completely lifting up the rear panel if it's closed.
- Lift the rear panel up from the bottom of the device and remove it.

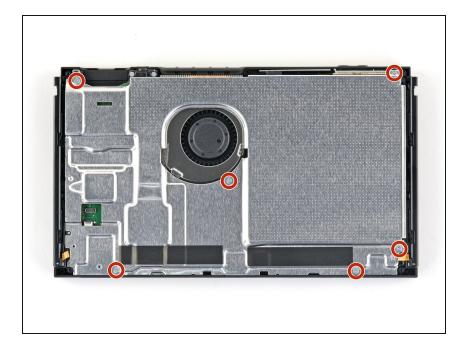
## Step 9 — Remove the microSD card reader



 Use a JIS 000 screwdriver or an official iFixit PH 000 driver to remove the 3.1 mm screw securing the microSD card reader to the device.



- Use your fingers or a pair of tweezers to lift the microSD card reader straight up from the device to disconnect and remove it.
- During reassembly, make sure the press connector underneath the foam pad is firmly connected to the motherboard. It may help to remove the foam pad before reinstalling the card reader.



 Use a JIS 000 screwdriver or an official iFixit PH 000 driver to remove the six 3 mm screws securing the shield plate to the device.

## Step 12



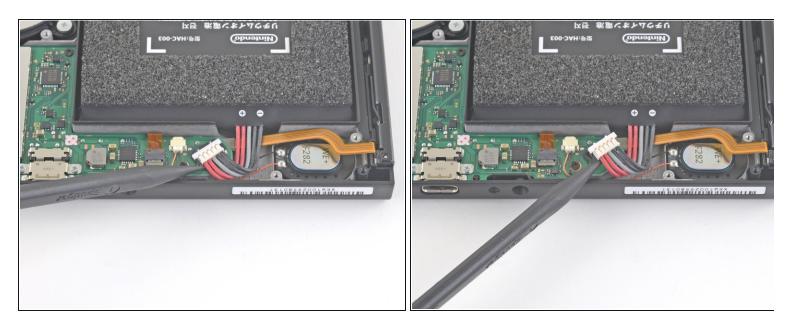
 Use your fingers or a pair of tweezers to peel back the piece of foam on the top edge of the device near the fan exhaust port.

If the foam doesn't easily peel away, don't force it as it might end up tearing. Carefully peel at different spots to pull back the foam.



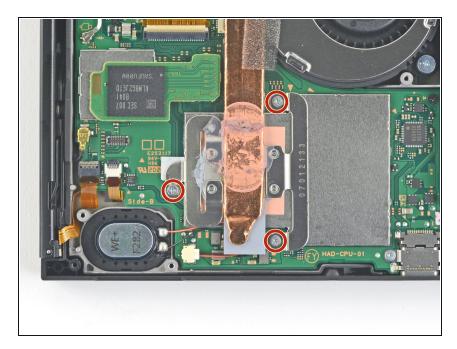
- Insert a spudger underneath the shield plate along the edge of the device.
- Pry up to lift the shield plate and remove it from the device.
  - (i) You may feel a bit of resistance. This is normal, since the shield plate is slightly bonded to the heat sink with thermal paste.
- (i) A thick pink thermal compound bridges the gap between the shield plate and the copper heat sink underneath. This helps prevent the Switch from overheating.
  - You can reuse the pink thermal compound if you're careful. Keep the compound clean and make sure it makes solid contact between the heat sink and the shield during reassembly.
  - If you need to replace it, refer to our <u>thermal paste guide</u> to remove the old thermal compound and replace it with an appropriate compound, such as <u>K5 Pro</u>, during reassembly.

## Step 14 — Disconnect the battery



• Use the point of a spudger to pry the battery connector straight up and out of its socket on the motherboard.

#### Step 15 — Remove the heat sink



 Use a JIS 000 screwdriver or an official iFixit PH 000 driver to remove the three 3 mm screws securing the heat sink to the motherboard.

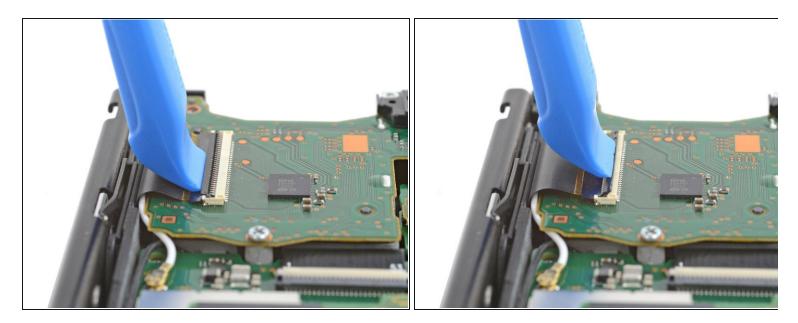


- Carefully peel the two foam pieces stuck over both the heatsink and the fan away from the fan.
- (i) The foam only needs to be peeled back enough to clear the fan.
- The foam is really delicate and tears easily. Use the following technique to peel the foam:
  - Insert the point of a spudger underneath the part of the foam that isn't stuck against anything,
  - Press the top of the foam with your finger to hold it in place.
  - Roll the spudger tip underneath the foam all the way to the other end of the foam to release it.

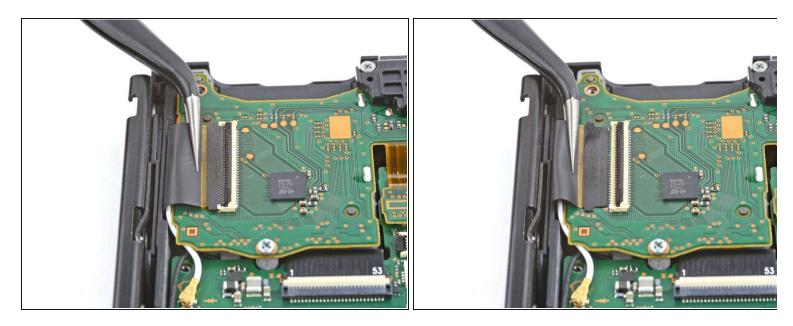


- Use a spudger or your fingers to lift the heatsink up and off the motherboard to remove it.
  - (i) You may feel a bit of resistance. This is normal, since the heat sink is slightly bonded to the CPU with thermal paste.
- Clean off the old thermal paste from the heat sink and CPU using high-concentration (90% or higher) isopropyl alcohol and a microfiber cloth. <u>Apply new thermal paste</u> to the CPU before reassembly.
- Apply thermal paste to all surfaces that had thermal paste applied previously. This includes between the heatpipe and aluminum shield, which the Switch uses as additional heatsinking.

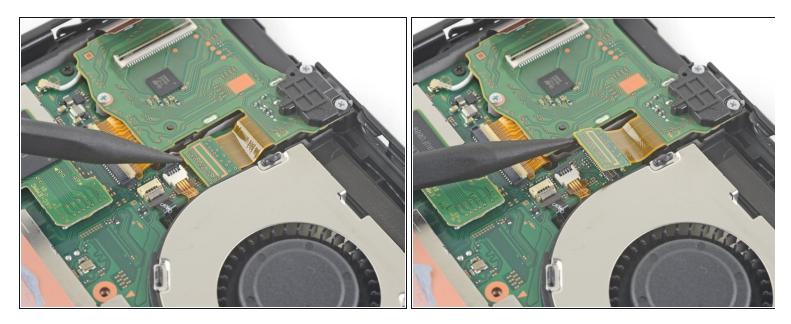
## Step 18 — Remove the headphone jack and game card reader



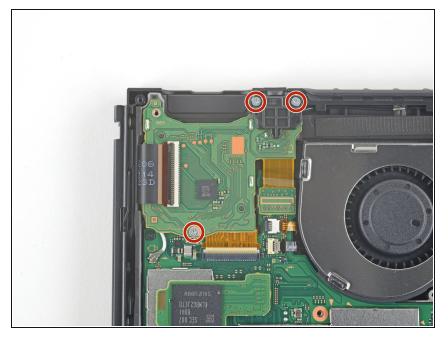
• Use an opening tool or your fingernail to flip up the small, hinged locking flap on the digitizer cable's <u>ZIF connector</u>.



- Use a pair of tweezers to slide the digitizer cable horizontally out of its connector on the game card reader board.
- Before inserting the cable during reassembly, make sure the ZIF connector locking flap is <u>flipped up</u>.
- With the cable **parallel to the board**, gently slide it into its connector.
  - Don't force the cable into the connector. If it doesn't insert, ensure the locking flap is flipped up, reposition the cable, and try again.
- (i) If your touchscreen doesn't work after the repair but your Game Card reader does, make sure this cable is properly inserted. If your Game Card reader also doesn't work, check the Game Card connector in the next step instead.

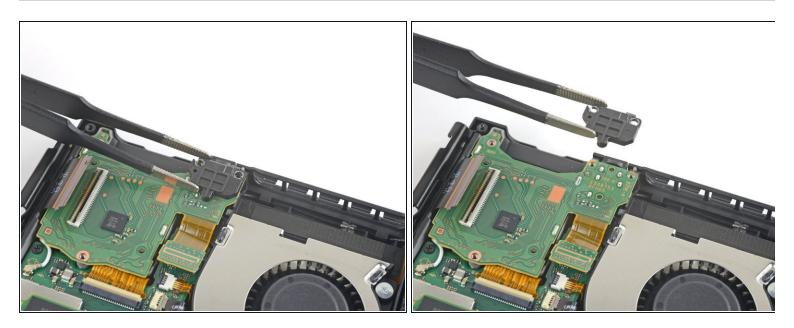


- Use the point of a spudger to pry the headphone jack and game card reader connector straight up to disconnect it from the motherboard.
- To re-attach <u>press connectors</u> like this one, carefully align and press down on one side until it clicks into place, then repeat on the other side. Do not press down on the middle. If the connector is misaligned, the pins can bend and cause permanent damage.
- (i) If the touch screen doesn't work and/or game cards aren't detected after reassembly, you might have not fully reconnected this press connector. Carefully disconnect it and try again.

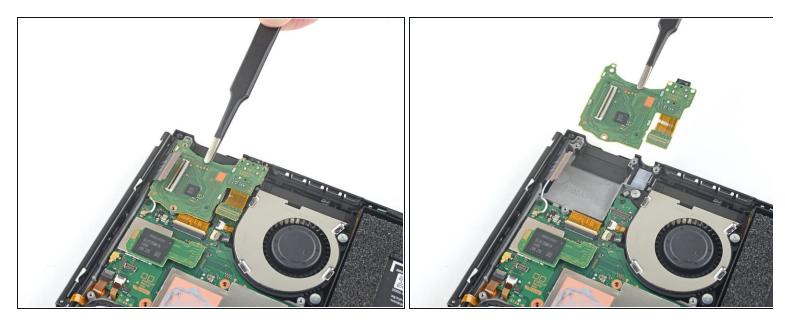


 Use a JIS 000 screwdriver or an official iFixit PH 000 driver to remove the three 3.1 mm screws securing the headphone jack and game card reader board to the device.

## Step 22

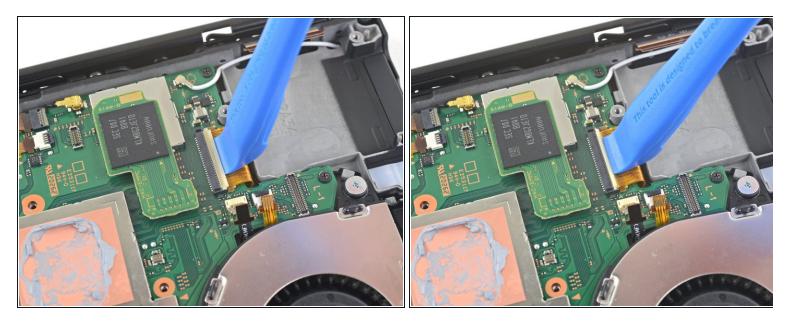


• Use a pair of tweezers or your fingers to remove the headphone jack bracket.

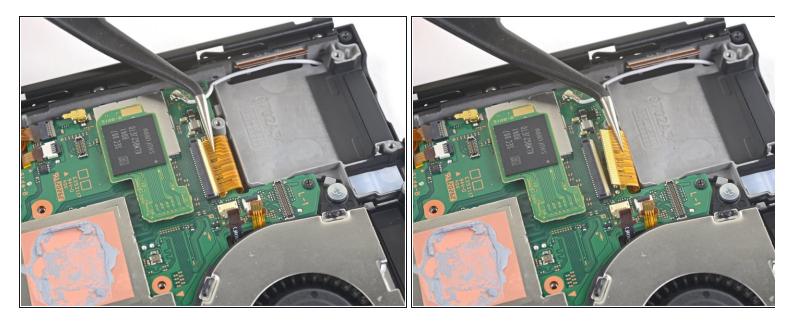


• Use a pair of tweezers or your fingers to remove the headphone jack and game card reader board.

## Step 24 — Screen

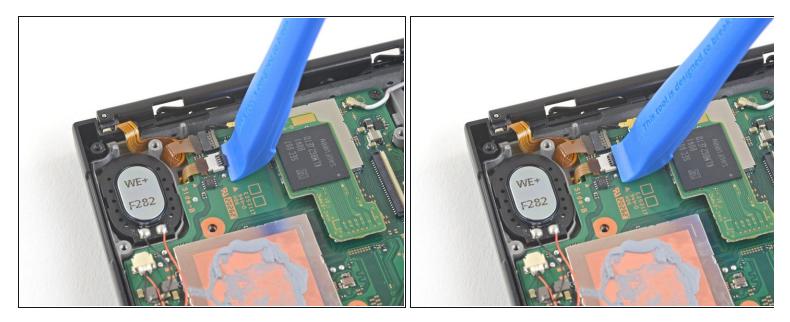


 Use an opening tool, spudger, or your fingernail to flip up the small, hinged locking flap on the LCD ribbon cable <u>ZIF connector</u>.

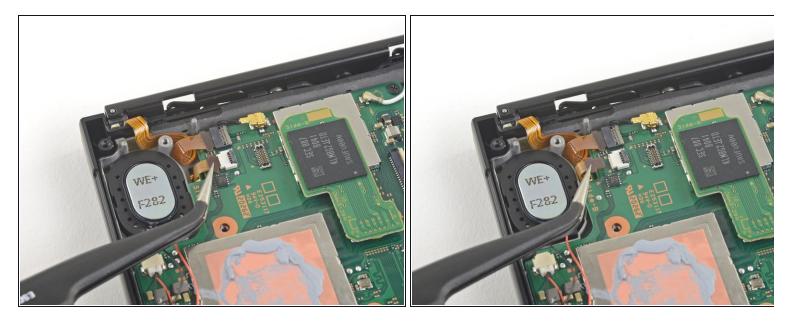


• Use a pair of tweezers to pull the ribbon cable straight out of its connector on the motherboard.

## Step 26



• Use an opening tool, spudger, or your fingernail to flip up the small, hinged locking flap on the smaller LCD ribbon cable <u>ZIF connector</u>.



• Use a pair of tweezers to pull the ribbon cable straight out of its connector on the motherboard.



- <u>Heat an iOpener</u> and apply it to the bottom edge of the screen for around two minutes to to help soften the adhesive.
- A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the device—the display and internal battery are both susceptible to heat damage.



- Apply a suction cup to the bottom-left corner of the screen.
- Pull up on the suction up with strong, steady force to create a gap.
  - (i) Depending on the age of your device, this may be difficult. If you have trouble, apply more heat and try again.
- Insert the point of an opening pick into the gap, making sure to only insert the pick about 5 mm.



- Slide the opening pick along the bottom edge of the screen to slice the adhesive.
- Leave the pick inserted to prevent the adhesive from re-adhering to the frame.

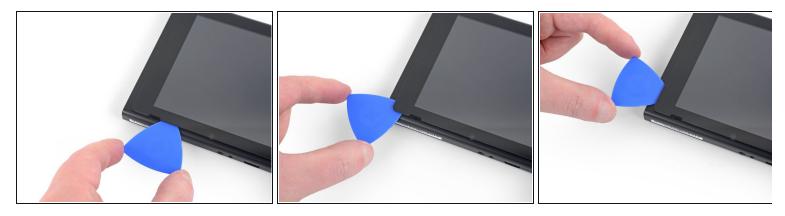


- Insert a second opening pick into the gap to the left of the first pick.
- Slide the opening pick back towards the left side of the device.
- Leave the opening pick inserted.

## Step 32



 Heat the left edge of the screen for around two minutes to help soften the adhesive.



• Continue sliding the opening pick around the bottom-left corner to slice the adhesive.

# Step 34

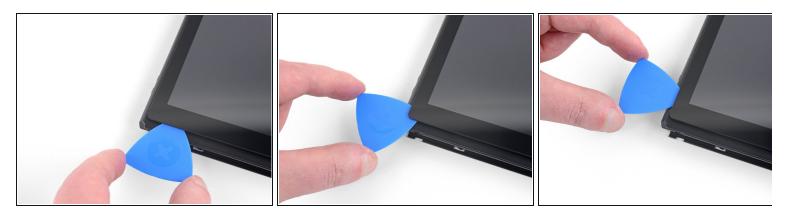


• Continue sliding the opening pick along the left edge of the screen to slice to adhesive.



• Heat the top edge of the screen for around two minutes to help soften the adhesive.

## Step 36



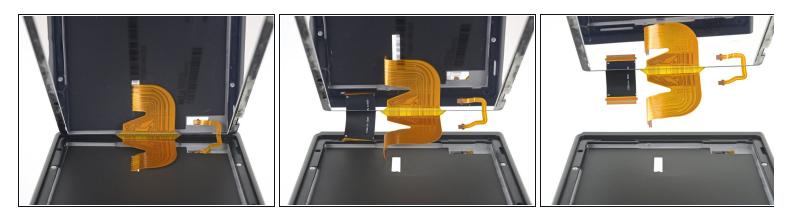
• Continue sliding the opening pick around the top-left corner of the screen to slice the adhesive.



• Continue sliding the opening pick along the top edge of the screen to slice the adhesive.



- Heat the right edge of the screen for around two minutes to help soften the adhesive.
- Place the flat end of a spudger into the gap along the left edge of the screen.
- Carefully and slowly lift the left edge of the screen, opening it like a book.



• Lift the right edge of the screen straight off the device, threading the ribbon cables through the frame as you do so.

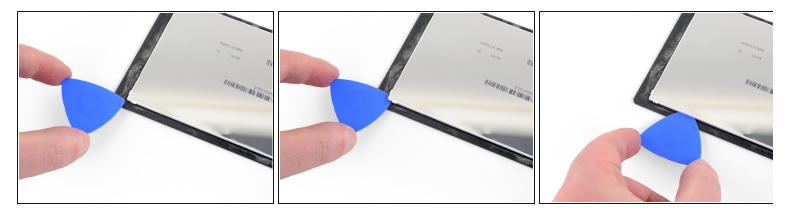
Take care not to snag any of the ribbon cables on the frame as you remove the screen.

You can reuse the screen adhesive if it is still sticky. Otherwise, replace the adhesive with double-sided tape such as Tesa tape.

#### Step 40 — Separate the LCD panel and digitizer



 Heat the top edge of the screen assembly for around two minutes to help soften the adhesive holding the LCD panel to the digitizer.



- Turn the screen assembly over.
- Insert an opening pick in between the LCD panel and the digitizer at the top-left corner.
  - *i* It doesn't matter how deep you insert the opening pick, but about 5 mm is enough to slice through all the adhesive.
  - (i) You can slightly bend the digitizer to create a wider gap, but take care not to bend it too far to cause damage to the digitizer if you're reusing it.
- Slide the opening pick along the top edge of the screen assembly to slice the adhesive.



## Step 42

• Continue sliding the opening pick along the top edge of the screen to slice the adhesive.



 Heat the left edge of the screen assembly for around two minutes to help soften the adhesive.

# Step 44



 Insert and slide the opening pick along the left edge of the screen assembly to slice the adhesive.

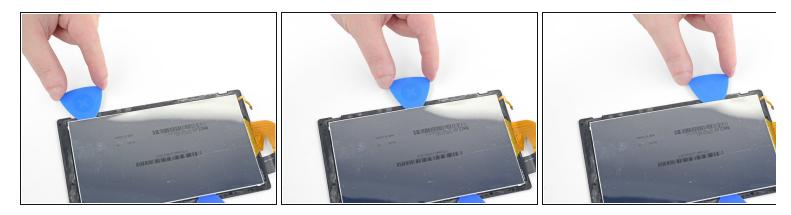


• Continue sliding the opening pick around the bottom-left corner of the screen assembly to slice the adhesive.

## Step 46



 Heat the bottom edge of the screen assembly for around two minutes to help soften the adhesive.



• Continue sliding the opening pick along the bottom edge to slice the adhesive.

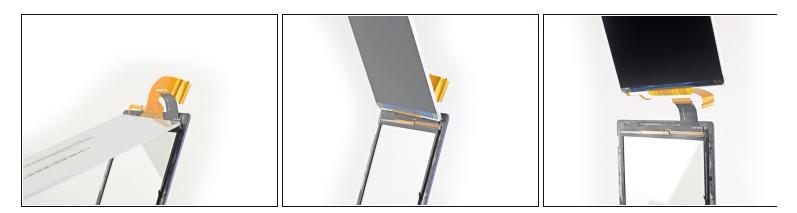
## Step 48



• Heat the right edge of the screen assembly for around two minutes to help soften the adhesive.



- Insert the flat end of a spudger in between the LCD panel and the digitizer along the left edge of the screen assembly.
- Carefully and slowly lift up the left side of the LCD panel, opening it like a book.



- Continue lifting the LCD panel away from the digitizer to separate the two components.
- (i) The LCD ribbon cable is slightly adhered to the digitizer. If it doesn't remove easily, apply more heat to that area and try again.

#### Step 51 — Digitizer



- Only the digitizer panel remains.
- If your new digitizer does not come with pre-installed adhesive, <u>follow</u> <u>this guide to install pre-cut adhesive</u> around the perimeter before reassembly.

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 these instructions in reverse order.

# If your new digitizer doesn't work properly after you boot up the device, turn it back off and disconnect and reconnect the battery connector.

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

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