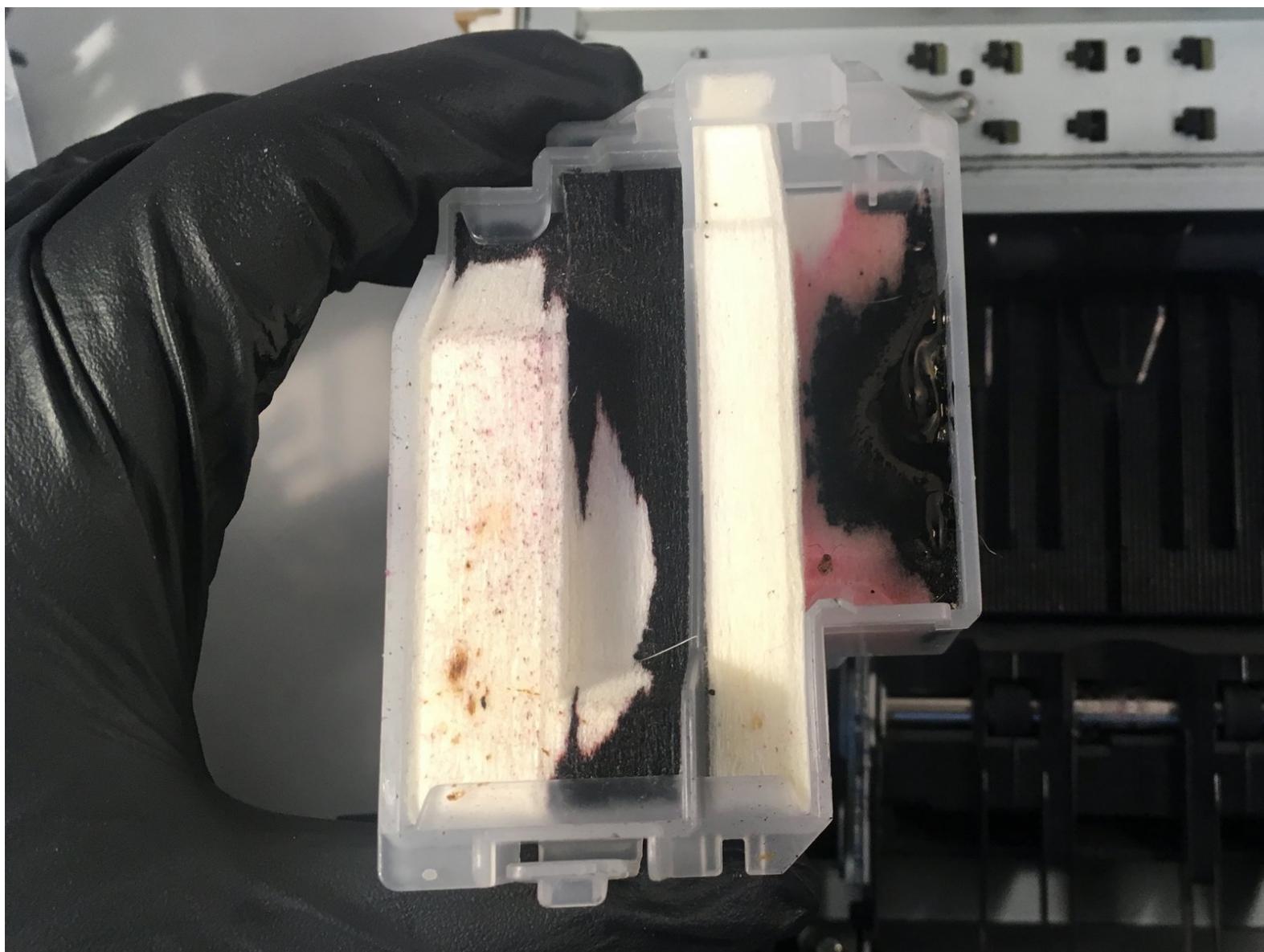




MFC-J4410DW Flushing Box Replacement

This guide will walk you through replacing the flushing box, for when you receive an "Ink Absorber Full" or "Near Full" error.

Written By: Calion



INTRODUCTION

When "Ink Absorber Full" or "Ink Absorber Near Full" appears on your printer screen, it's time to replace the Flushing Box (and/or the [Ink Absorber Box](#)).

Given the difficulty of this repair, it might be advisable to replace the [Ink Absorber Box](#) first, see if that solves the problem, and then replace the Flushing Box if that doesn't work, even though it will save time to do both at once.

TOOLS:

- Protective Part (1)
optional
- Spudger (1)
- Phillips #2 Screwdriver (1)
- Metal Spudger (1)
optional

PARTS:

- Flushing Box (1)

Step 1 — Preparation



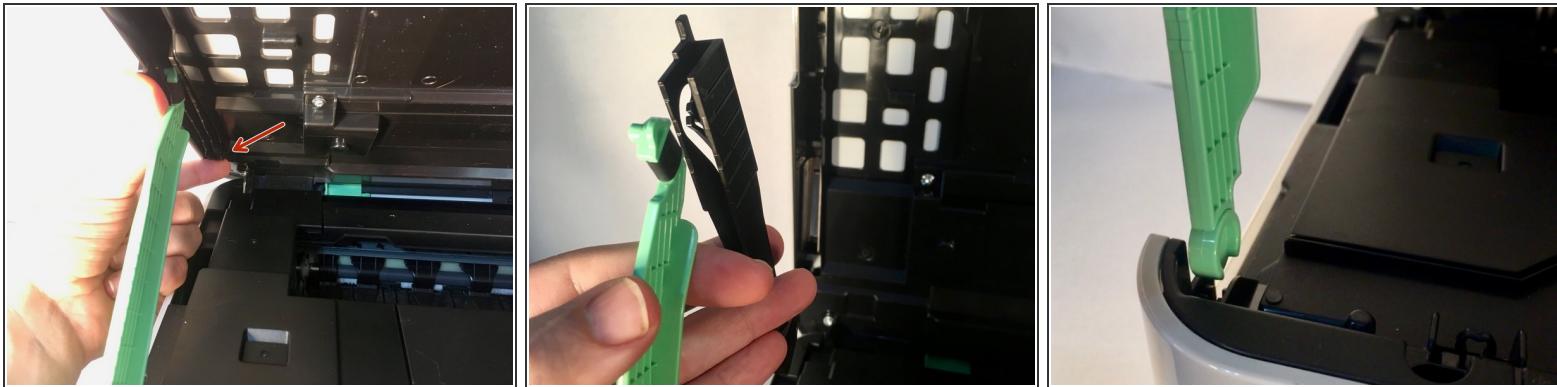
⚠ Before beginning disassembly, turn off the printer and unplug the power cord.

- Open the front access door and remove any cards or cables present. Close the access door.
- Remove the paper tray.
- Remove the ink cartridges.

i You may wish to install the [Protective Part](#) to prevent the ink tubes from drying while the cartridges are removed.

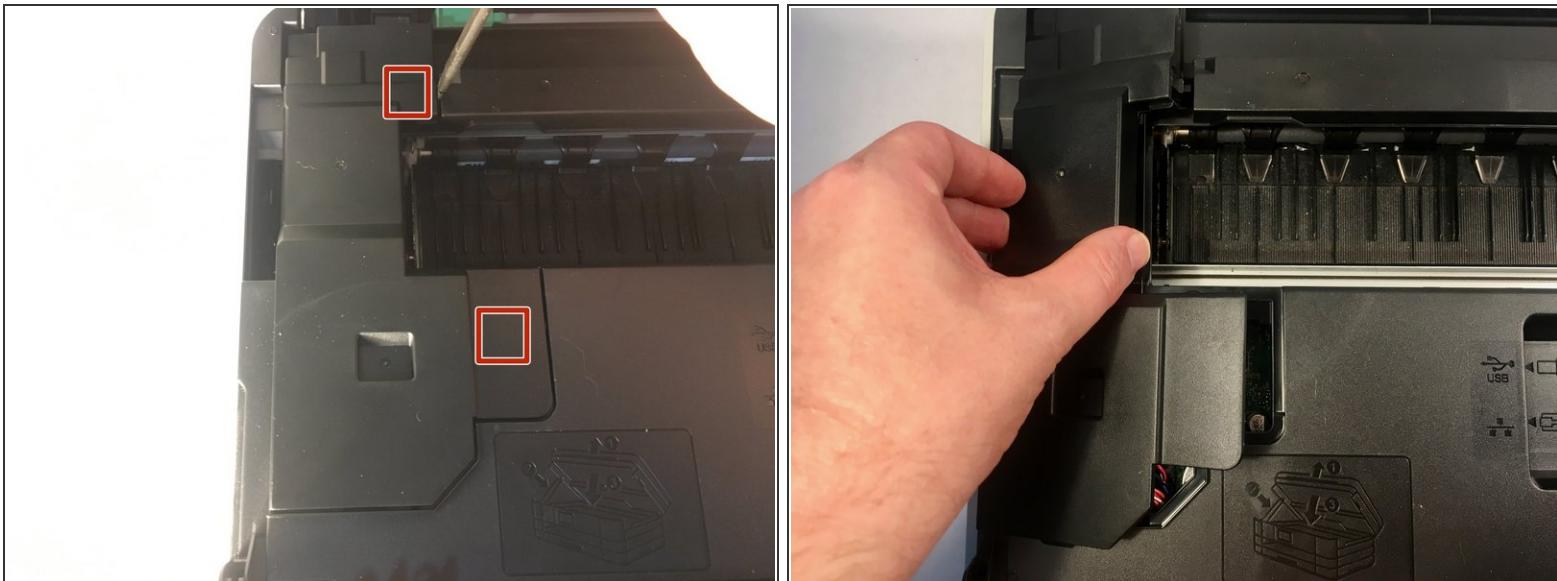
- Open the printer cover using the finger holds on the sides.
- Unplug and remove any cords present under the cover.
- Remove the LAN port and EXT port caps (if present).

Step 2 — Removing the cover support



- While holding the cover with one hand, pull the hook on the back of the support damper, then remove the damper from the cover.
- Remove the damper from the support.
- Turn the support upright and pull it straight out of the printer.

Step 3 — Removing the harness cover



- Use your finger or a spudger to unhook the two tabs on the right side of the harness cover by levering it up.
- Remove the harness cover. There are two tabs on the left side that you have to wiggle free, and one on the front.

Step 4 — Removing the grounding screw

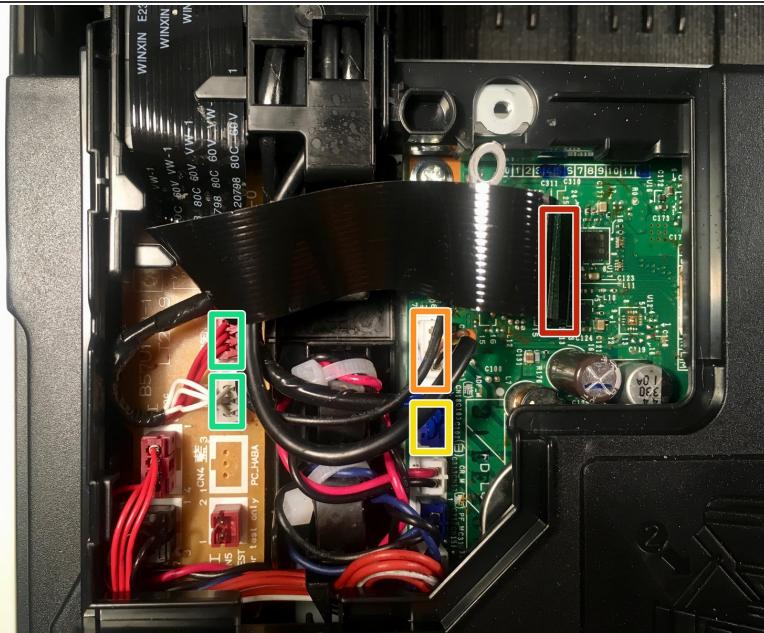


- Remove the 6 mm Phillips #2 screw from the grounding wire of the ADF motor harness.

↗ Torque: $0.40 \pm 0.10 \text{ N}\cdot\text{m}$

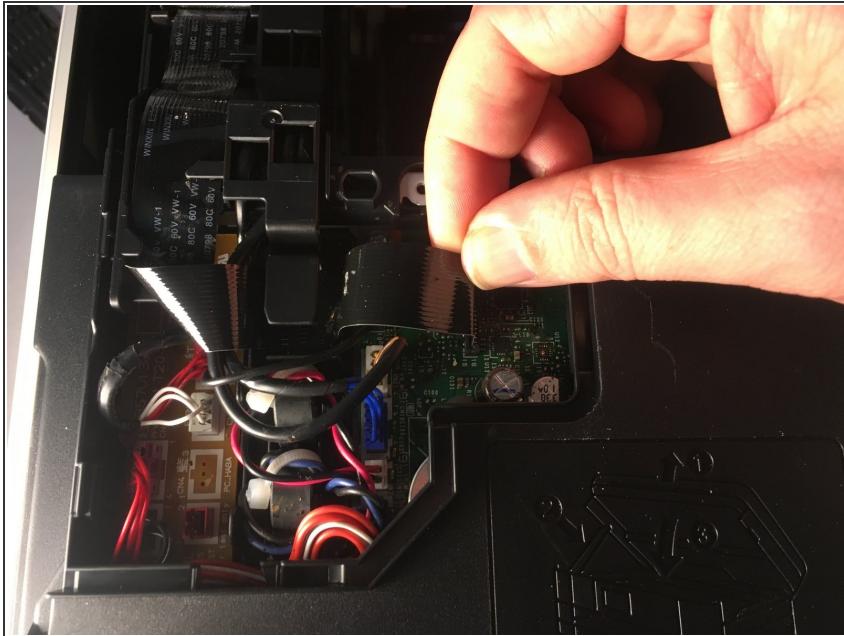
(i) The Brother service manual lists torques for all screws, but proper torque should not be necessary.

Step 5



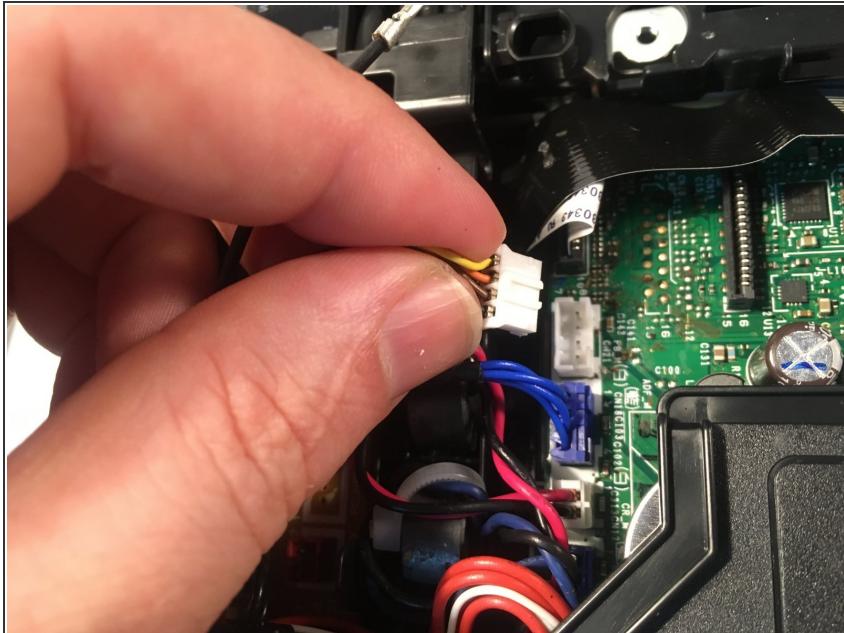
- In the proceeding steps, you will disconnect the following cables:
 - CIS flat cable
 - Scanner motor harness
 - ADF motor harness
 - Document detection/document scanning position sensor harness

Step 6



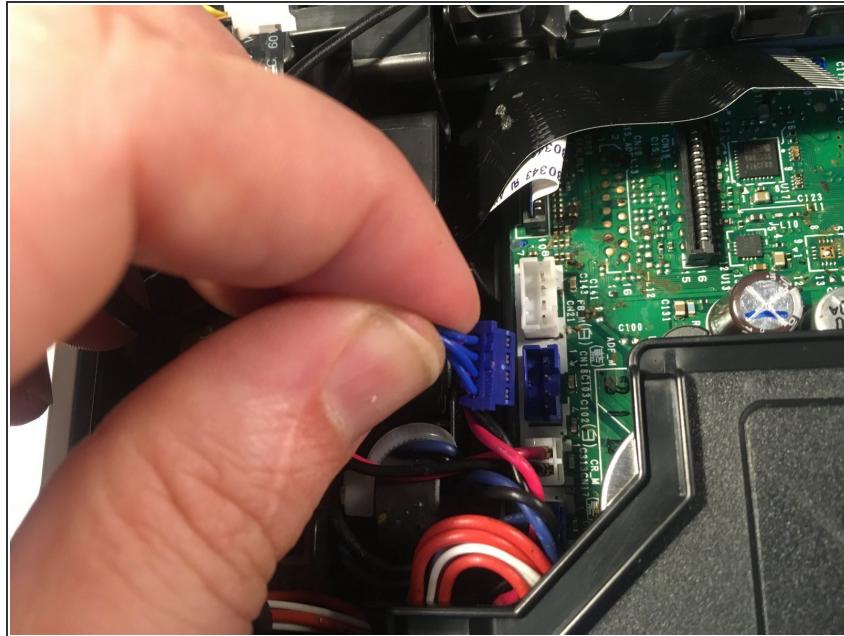
- Pull the CIS flat cable out of its socket.
- *(i)* Pull all flat cables directly up out of their sockets, pulling on the cables themselves at the blue tabs.

Step 7



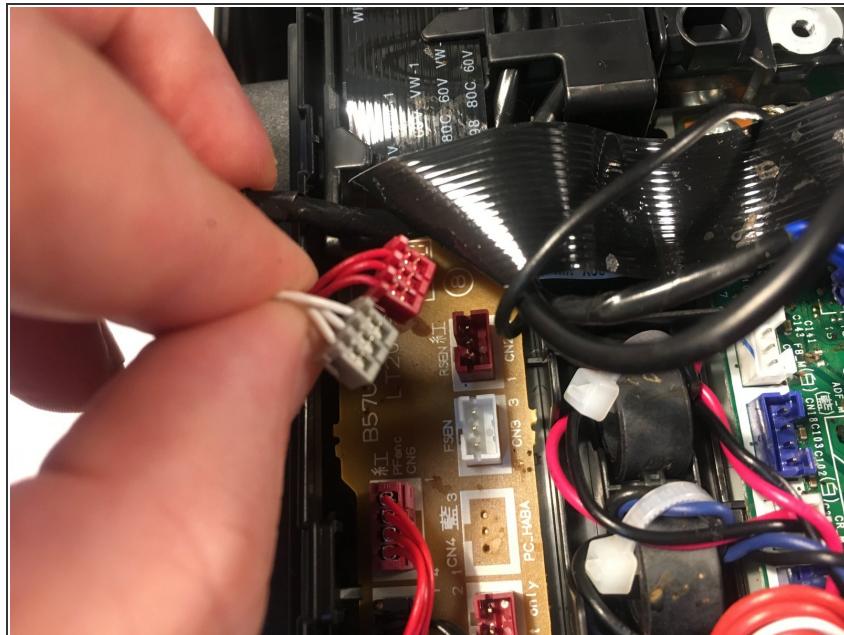
- Pull the scanner motor harness out of its socket.

Step 8



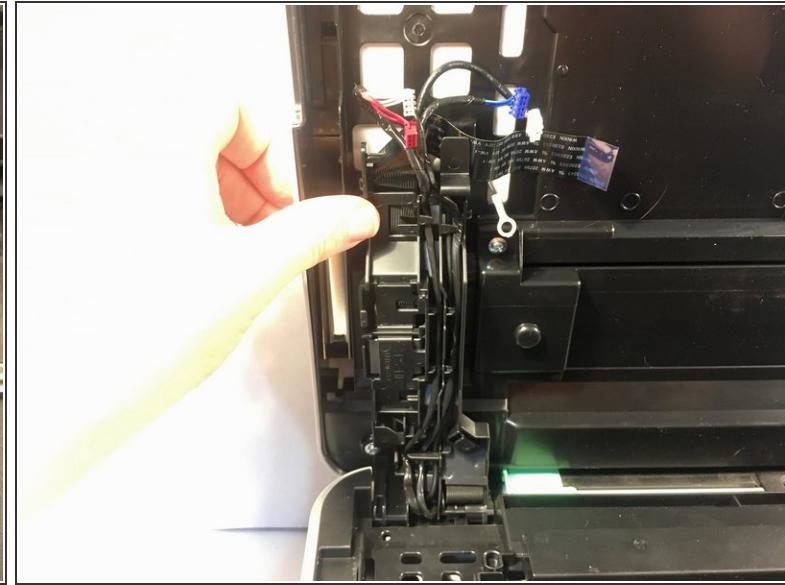
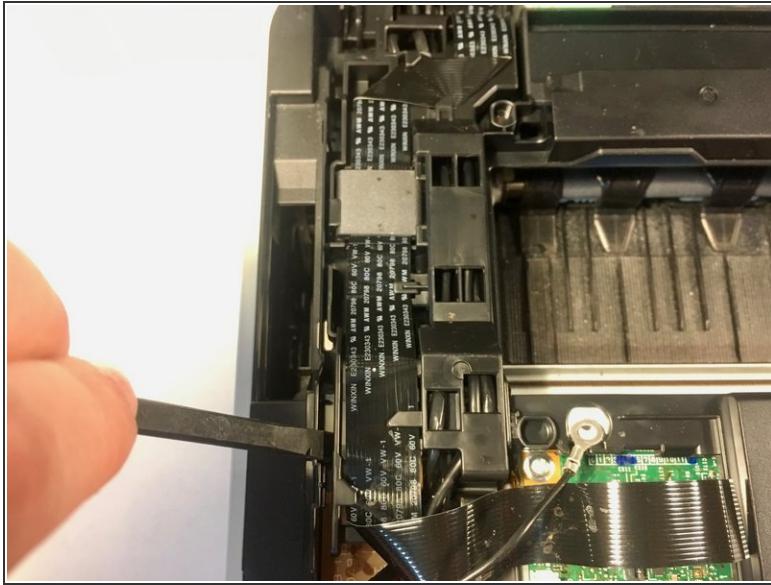
- Pull the ADF motor harness out of its socket.

Step 9



- Pull the document detection/document scanning position sensor harness out of its sockets.

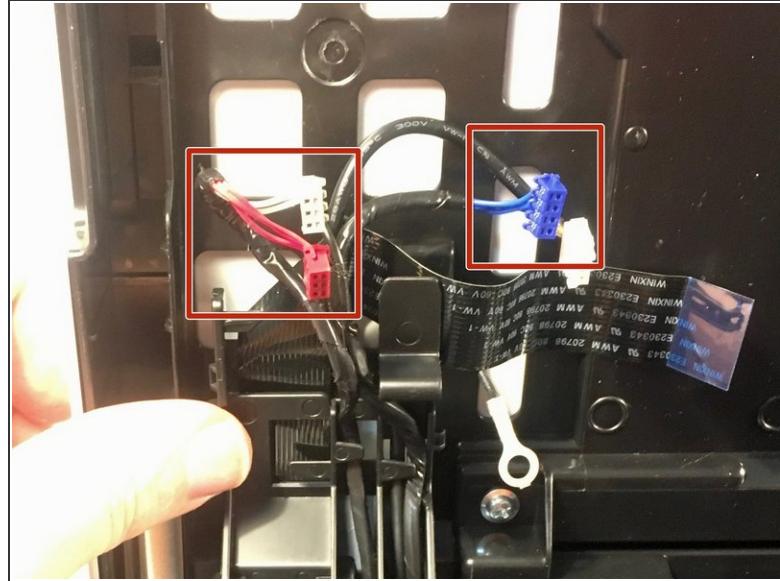
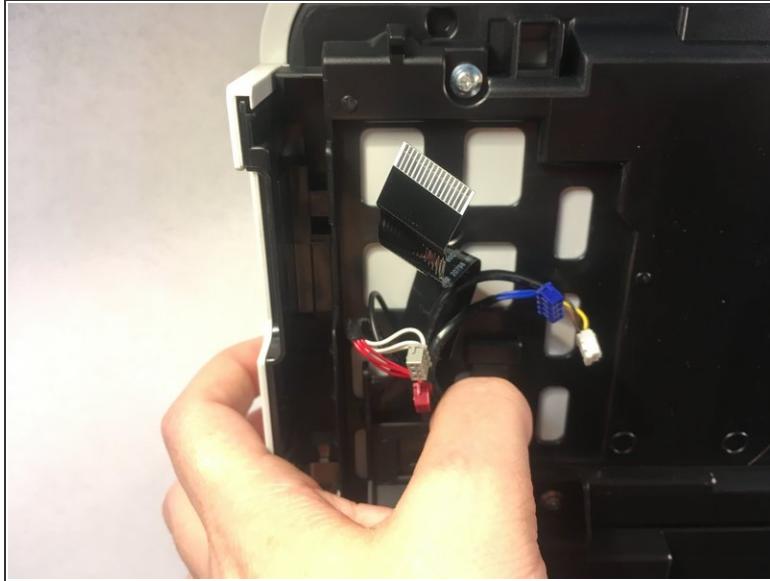
Step 10 — Opening the scanner harness holder



- Insert a spudger between the scanner harness holder and frame to release the tab. There is a second tab on the opposite side.
- Lift the scanner harness holder out of its frame.

 **Reassembly Note:** Before reattaching the harness holder, it is advisable to reattach the cover support ([Step 2](#)) to minimize tension on the wiring harnesses.

Step 11 — Securing the scanner harness holder



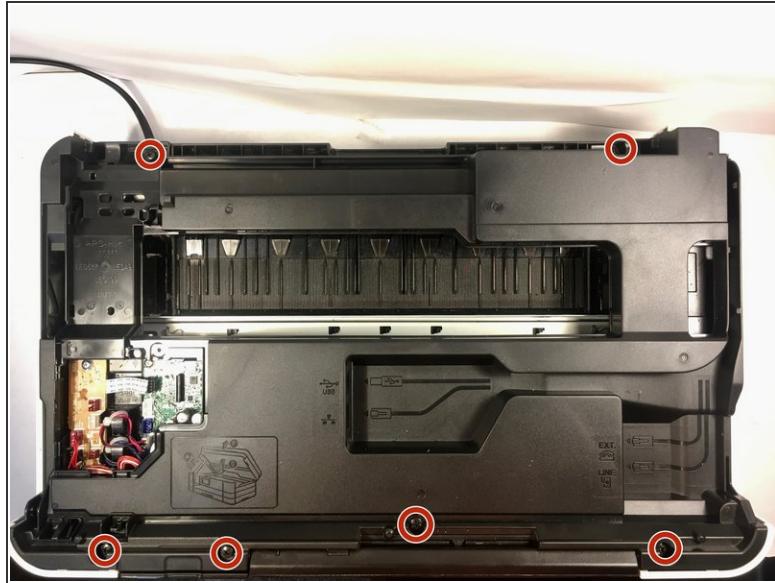
- Push on the tab to secure the scanner harness holder to the scanner cover.
- De-route the document detection/document scanning position sensor harness and the ADF motor harness from the scanner harness holder.
- ☒ During reassembly, put a 20mm-thick pad (book, stack of paper) on the scanner glass, close the scanner cover, then route the document detection/document scanning position sensor harness and the ADF motor harness through the harness holder. This will ensure the proper harness tension to allow scanning of thick books.

Step 12 — Removing the scanner cover



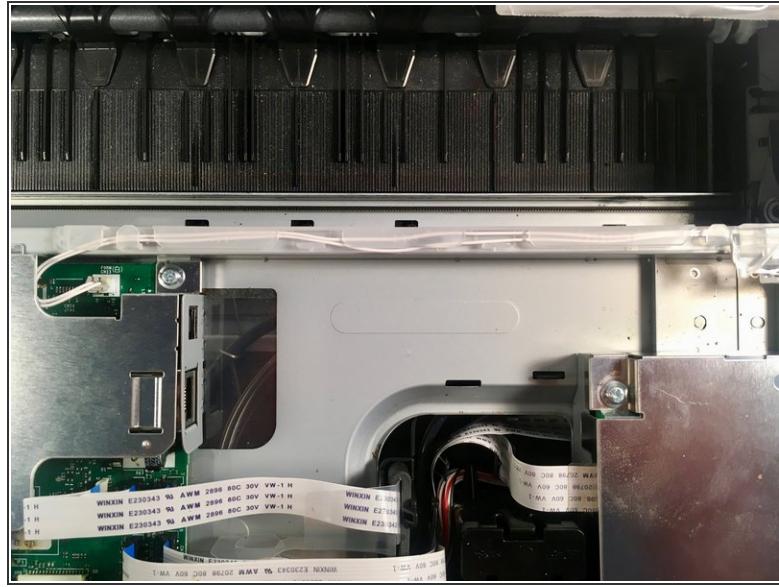
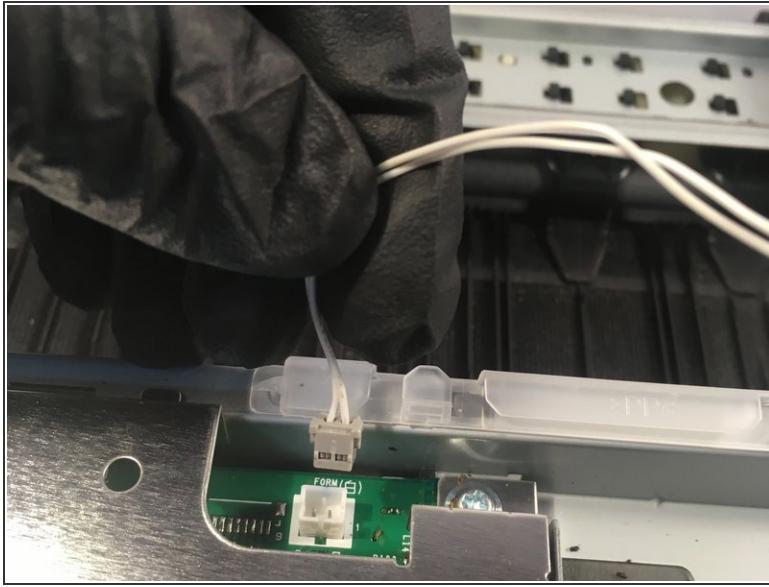
- Using both hands, pull the scanner cover to the rear while holding it vertically, then lift it off of the printer.

Step 13 — Removing the upper cover



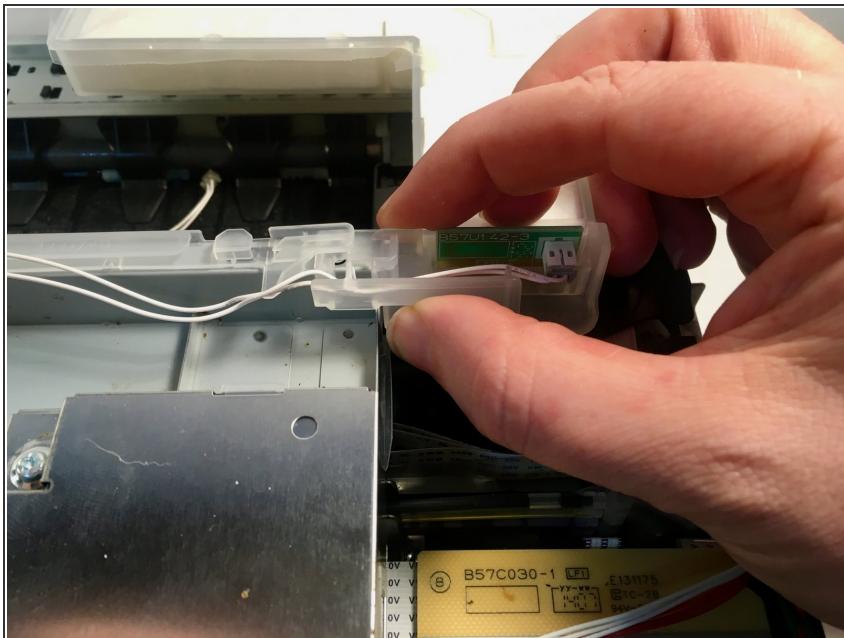
- Remove the six 12 mm Phillips #2 screws securing the upper cover to the printer.
☒ Torque: 0.70 ± 0.10 N•m
- Pull off the upper cover.
☒ When reinstalling, ensure that the control panel wiring holder slides into its slot on the upper cover.

Step 14 — Removing the ink absorber box wiring



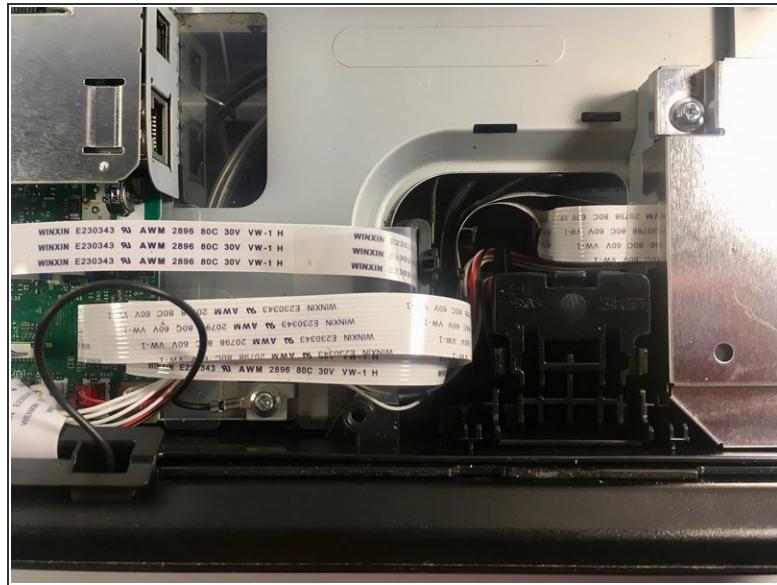
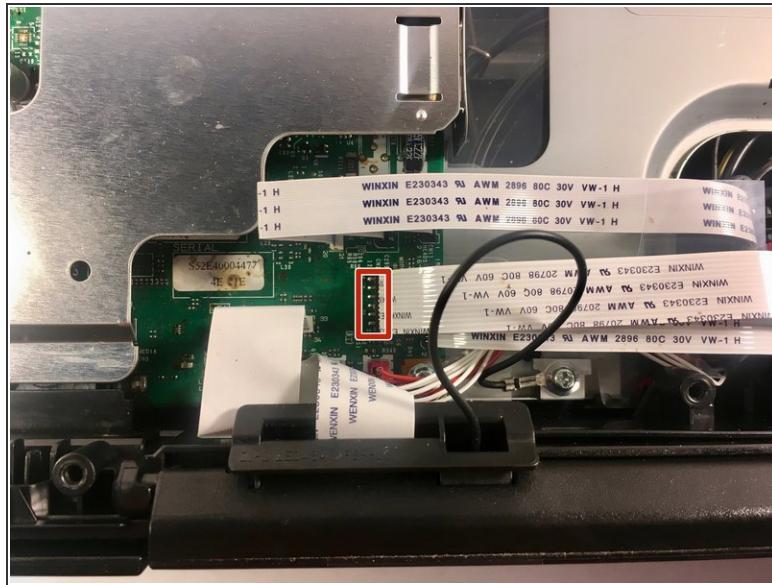
- Remove the ink absorber full sensor from its socket.
- De-route the wiring from its harness.

Step 15 — Unhooking the ink absorber



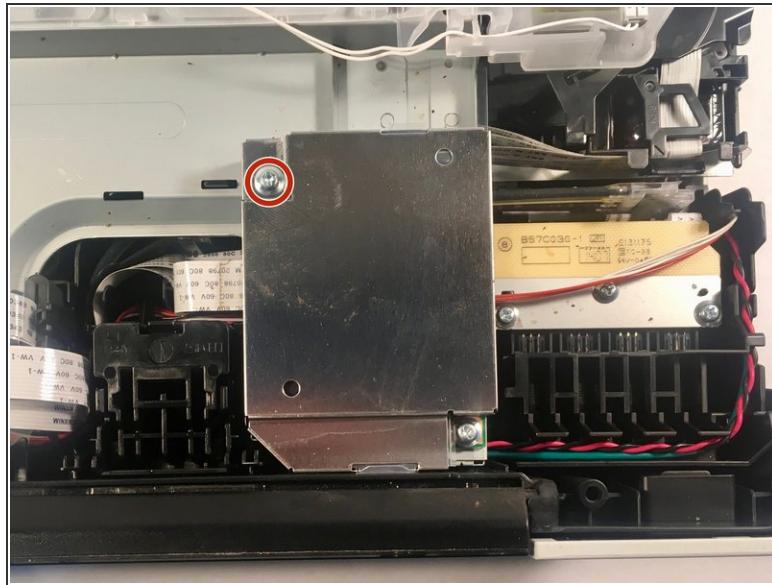
- Unclip the ink absorber from the harness by pulling it up and to the right.

Step 16 — Removing the MJ flat cable



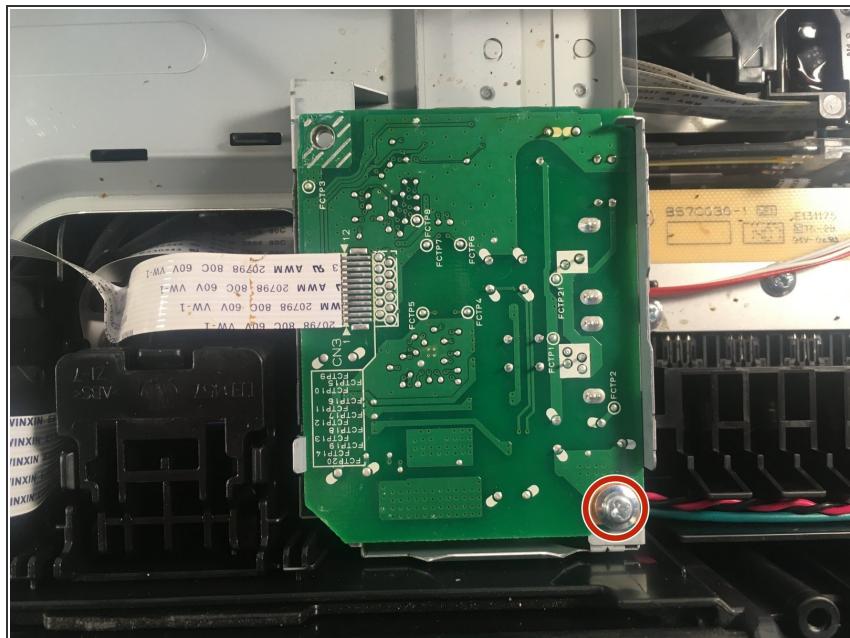
- Remove the MJ PCB flat cable.
- De-route the MJ PCB flat cable.

Step 17 — Removing the MJ shield



- Remove the 6 mm Phillips #2 screw securing the MJ shield.
↗ Torque: 0.40 ± 0.10 N·m
- Remove the MJ shield.

Step 18



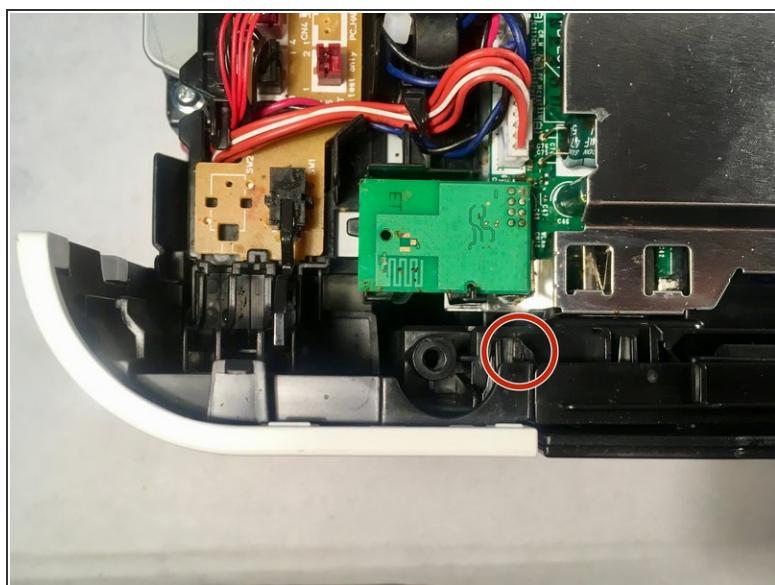
- Remove the 6 mm Phillips #2 screw securing the MJ PCB assembly.
↗ Torque: 0.40 ± 0.10 N·m

Step 19 — Removing the MJ PCB assembly



- Pull back on the MJ PCB assembly release tab.
- Remove the MJ PCB assembly.

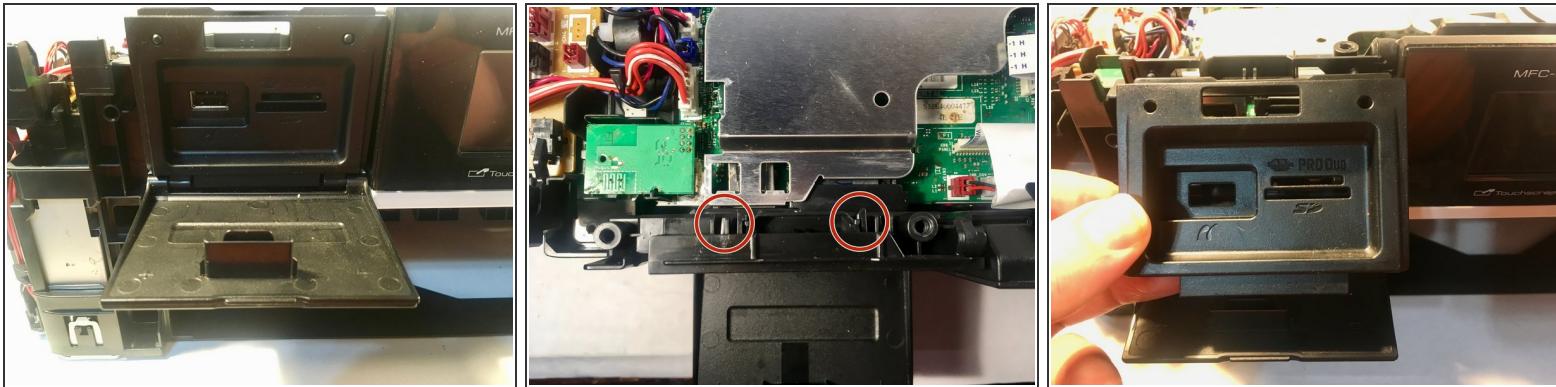
Step 20 — Removing the front cover



- Release the upper hook on the front cover.
- Pry the front cover off. Note the tab on the left side of the cover.

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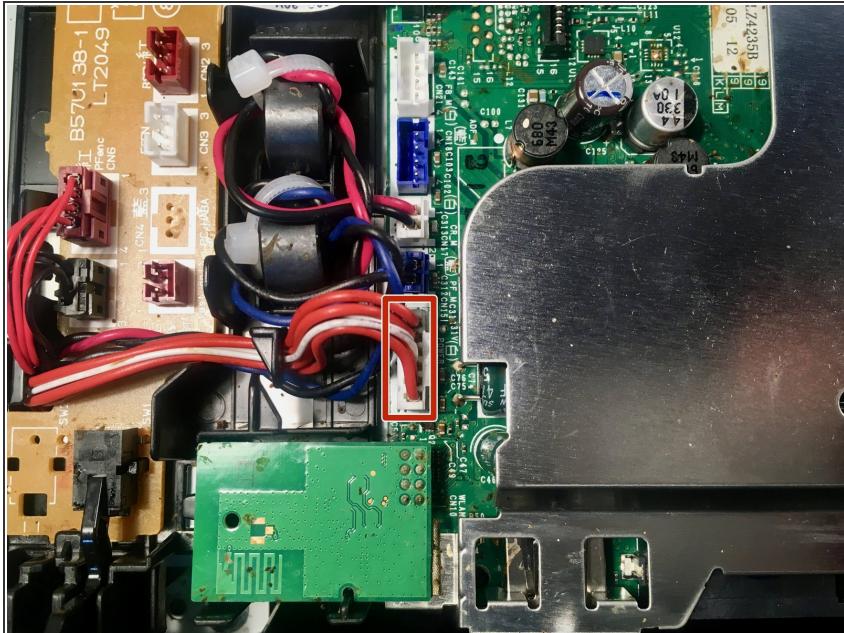
Step 21 — Removing the inner media module cover



- Open the media module cover.
- Release the two hooks holding the inner media module cover to the printer.
- Remove the inner media module cover.

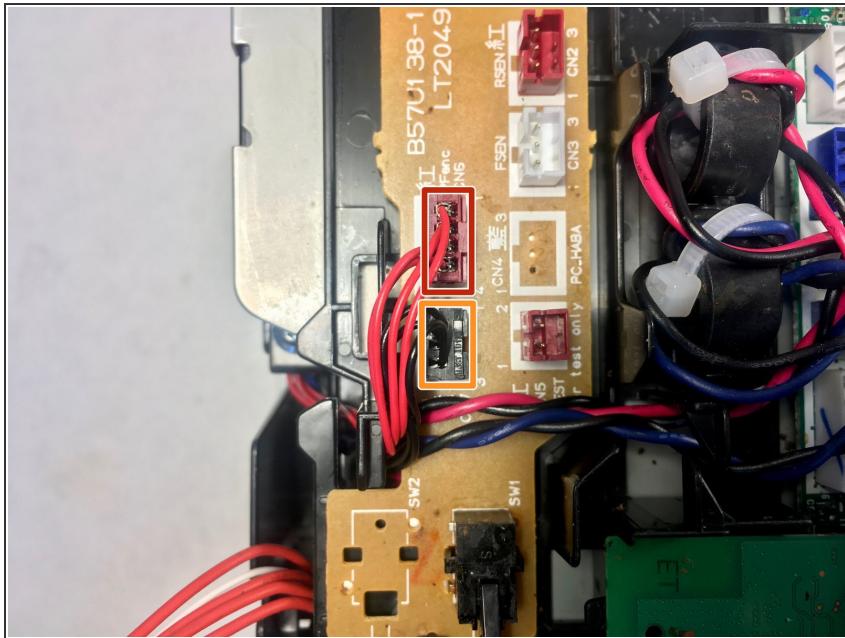
(i) You can close the media module cover after this to get it out of the way.

Step 22



- Remove the power supply PCB harness from the main PCB assembly and de-route it from the main PCB frame.

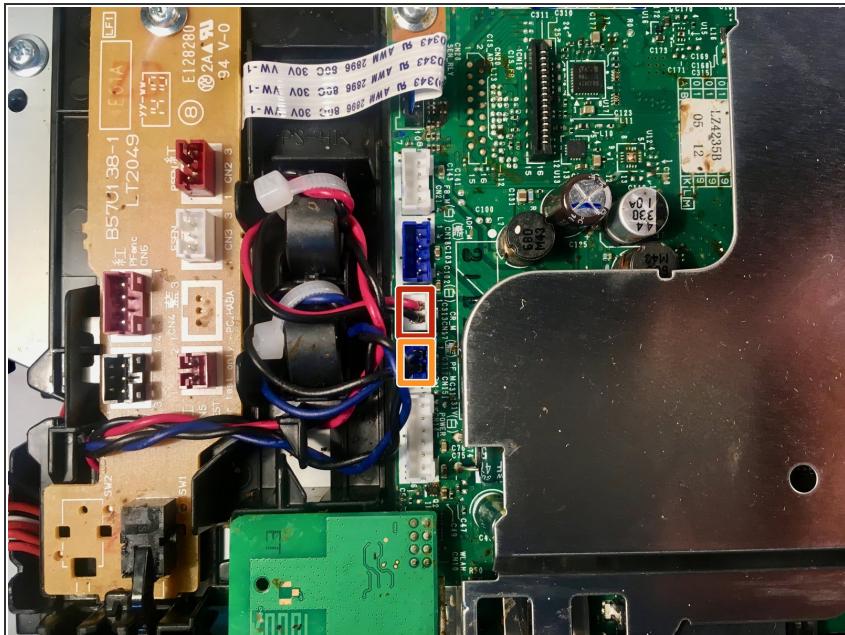
Step 23



- Remove the following wiring harnesses from the sensor relay PCB assembly, and de-route them from the main PCB frame:
 - Paper feed encoder sensor harness
 - Switchback sensor harness

(i) It may be easier to wait to de-route the carriage motor harness and paper feed motor harness before de-routing the switchback sensor harness.

Step 24



- Remove the following wiring harnesses from the main PCB assembly and de-route them from the main PCB frame:
 - Paper feed motor harness
 - Carriage motor harness

(i) In the process of de-routing these harnesses, pull straight up on the attached magnets to dislodge them from their retainers.

Step 25



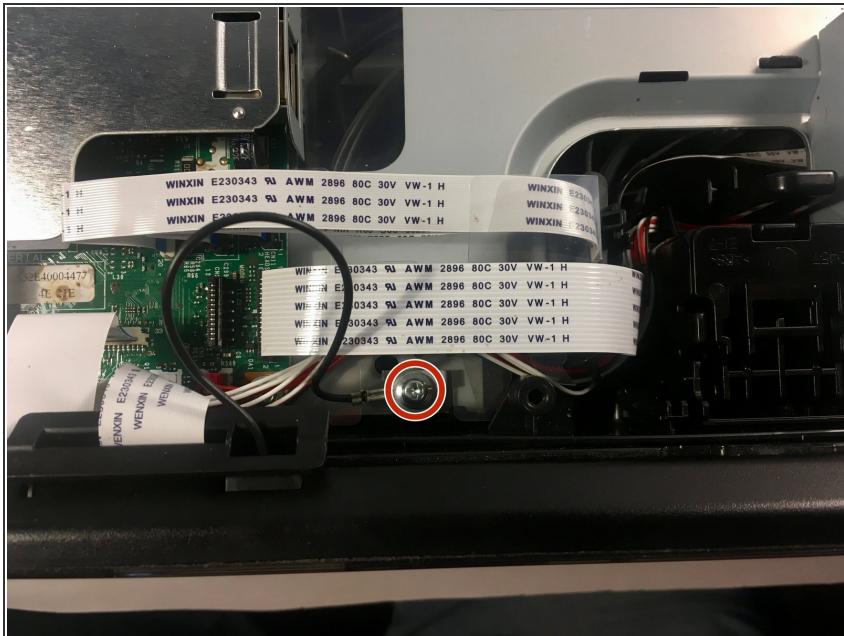
- Remove the control panel flat cable.
- Remove the ink refill sensor flat cable.
- Remove the following cables:
 - Carriage PCB flat cable 1
 - Carriage PCB flat cable 2
 - Carriage PCB flat cable 3

Step 26



- Remove the following wiring harnesses attached to the main PCB frame:
 - Speaker harness
 - Ink cover sensor harness
 - Purge cam sensor harness
 - Registration sensor harness

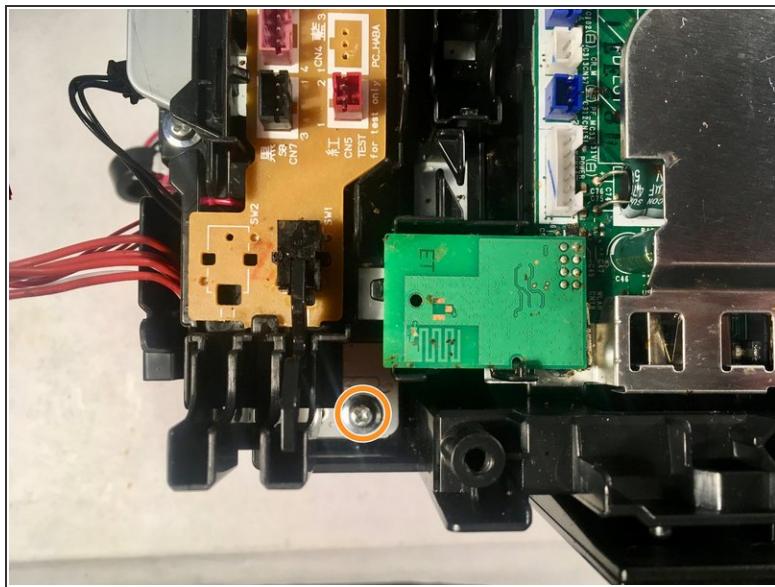
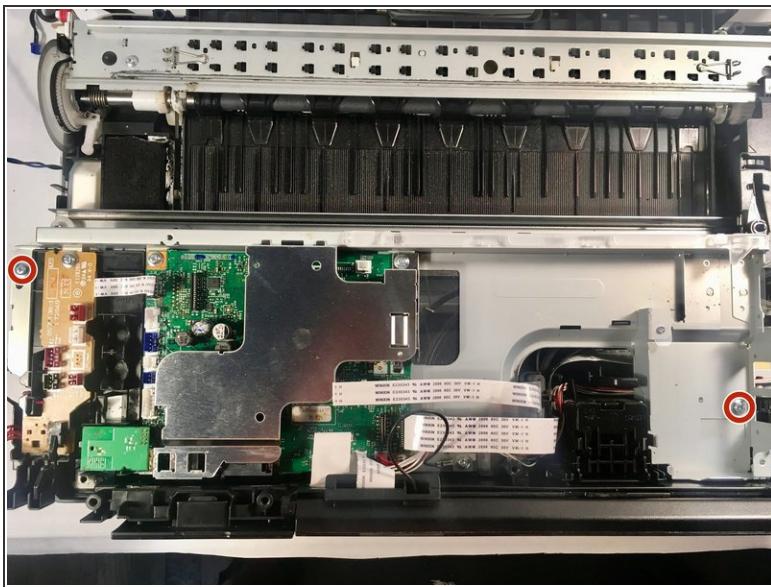
Step 27



- Remove the 6 mm Phillips #2 screw securing the control panel grounding wire.

Torque: 0.40 ± 0.10 N·m

Step 28



- Remove two 10 mm Phillips #2 screws securing the main PCB frame.

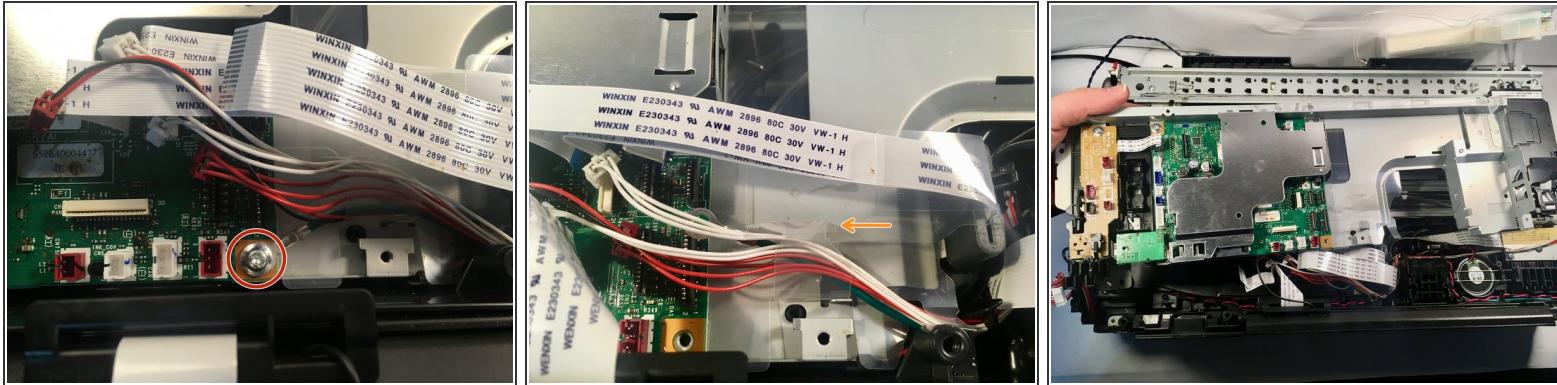
Torque: 0.40 ± 0.10 N·m

- Remove the final 6 mm Phillips #2 screw securing the main PCB frame.

Torque: 0.45 ± 0.10 N·m

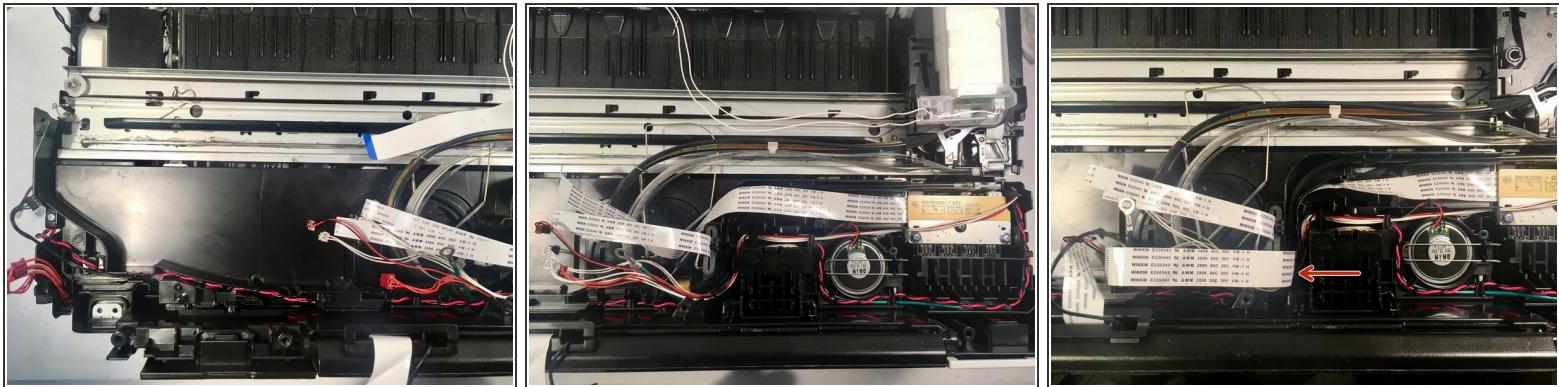
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Step 29 — Removing the main PCB frame



- Remove the 6 mm Phillips #2 screw securing the FG wire.
 - ☒ Torque: 0.40 ± 0.10 N·m
- Unhook the tab of the clear plastic wiring holder.
 - ☒ During reassembly, ensure that the plastic tab on the right goes into the slot behind the flat cables.
- Remove the main PCB frame.
 - ☒ Before reinstalling, ensure that the ink tubes beneath are not crimped.

Step 30



- De-route the switchback sensor harness (black) and the carriage motor harness (red and black) from the left side of the tube support plate.
- De-route the speaker harness (orange and black), purge cam sensor harness (white, three-wire), registration sensor harness (orange), ink cover sensor harness (white, two-wire), carriage motor harness (red and black), and FG wire (green) from the right side of the tube support plate.
- De-route the ink refill sensor flat cable from the tube support plate.

Step 31



- Remove the left 10 mm Phillips #2 screw holding down the tube support plate.
- Remove the center 10 mm Phillips #2 screw holding down the tube support plate.
- Remove the right 10 mm Phillips #2 screw holding down the tube support plate.

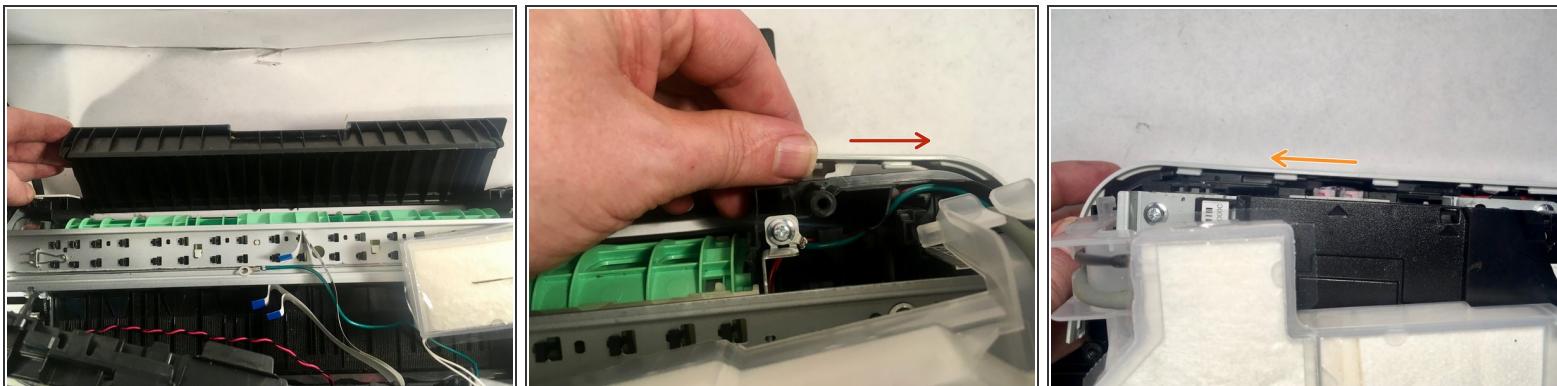
 Torque for all three screws: 0.40 ± 0.10 N·m

Step 32 — Removing the tube support plate



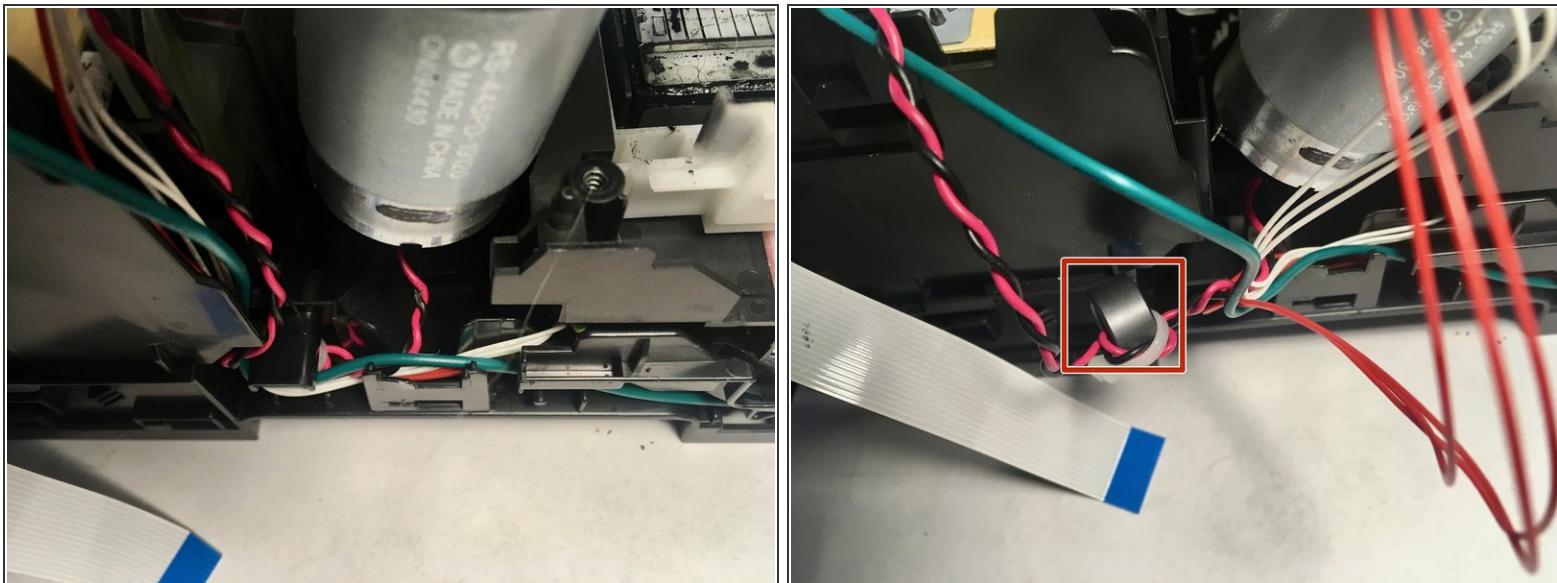
- Tilt open the control panel to release the tilt hook stopper.
 - 💡 There's a button on the underside of the control panel to allow it to fold back in.
- Release the retaining tab with your finger or a metal spudger.
- Remove the tube support plate.
 - ℹ️ There's no need to remove the ink tubes and flat harnesses. Just set the tube support plate out of the way on the printer. Take care not to crimp the ink tubes.
 - 💡 When reinstalling, make sure the black switchback sensor harness does not get left under the tube support plate.

Step 33 — Removing the lower right side cover



- Open the jam clear cover.
- Push the lower right side cover in the direction of the arrow to release its hooks from the printer. A metal spudger may be of use here.
- Pull the lower right side cover to the rear to release its hooks and remove it from the printer. Again, using a metal spudger to pry it to the rear may be useful.

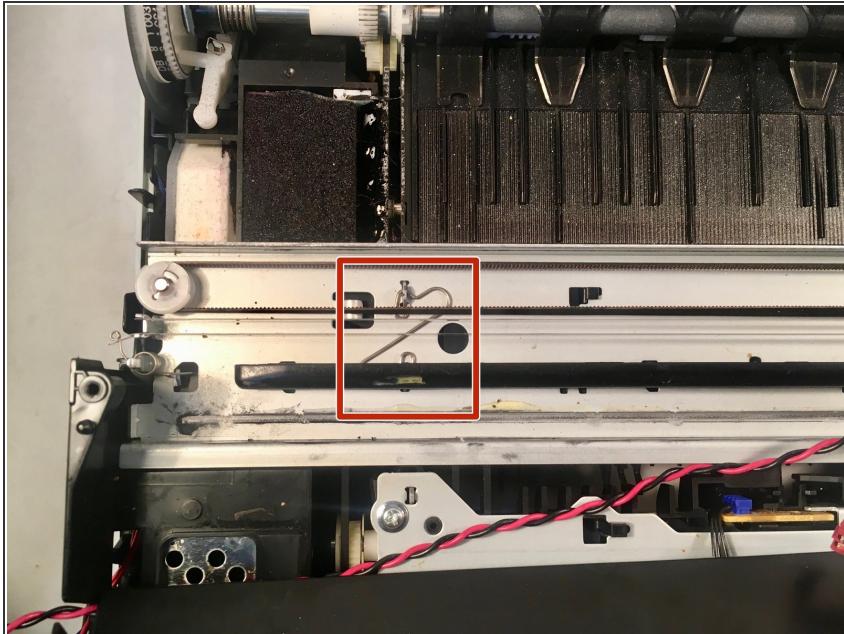
Step 34



- De-route the FG wire (green), the purge cam sensor harness (white), and the registration sensor harness (orange) from the right side of the machine.
- Remove the magnet attached to the carriage motor harness (red and black) from its slot.

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Step 35



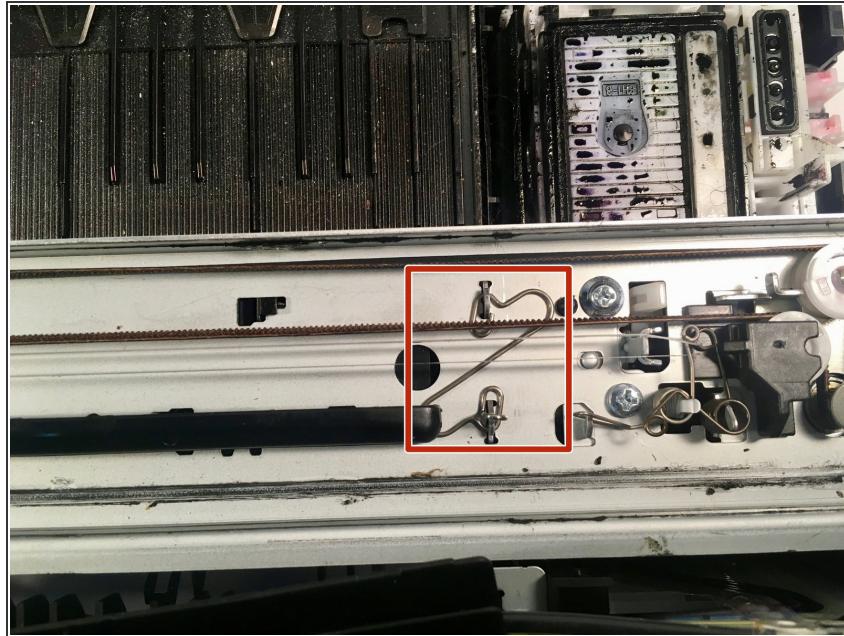
- Remove the left carriage frame spring by pulling back on the tab on the bottom.

Step 36 — Moving the head/carriage unit



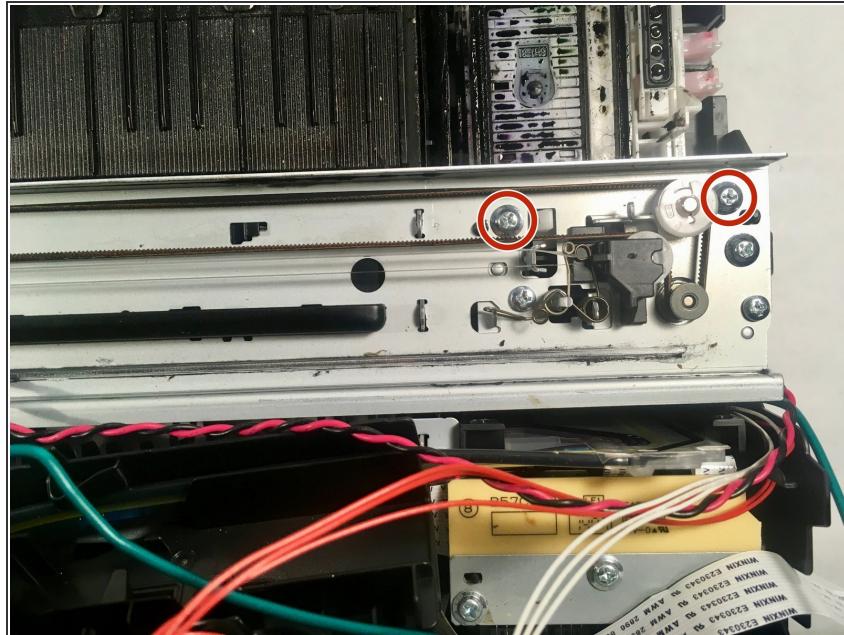
- Turn the paper feed roller gear in the direction of the arrow until the head stopper of the maintenance unit clicks.
- i* From this step on, it might be a good idea to wear nitrile gloves to protect your hands from ink stains. But don't worry; they wash off easily.
- Slide the head/carriage unit to the removal slot at the far left.
- The removal slot.

Step 37



- Remove the right carriage frame spring.

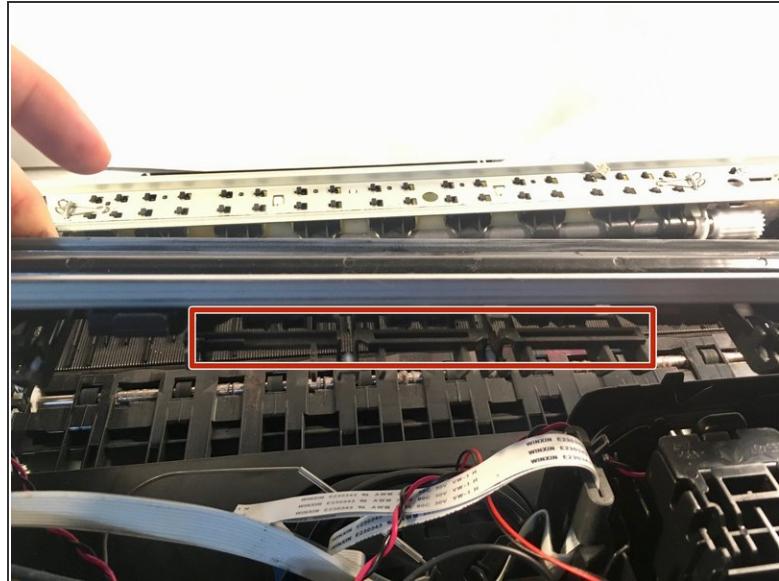
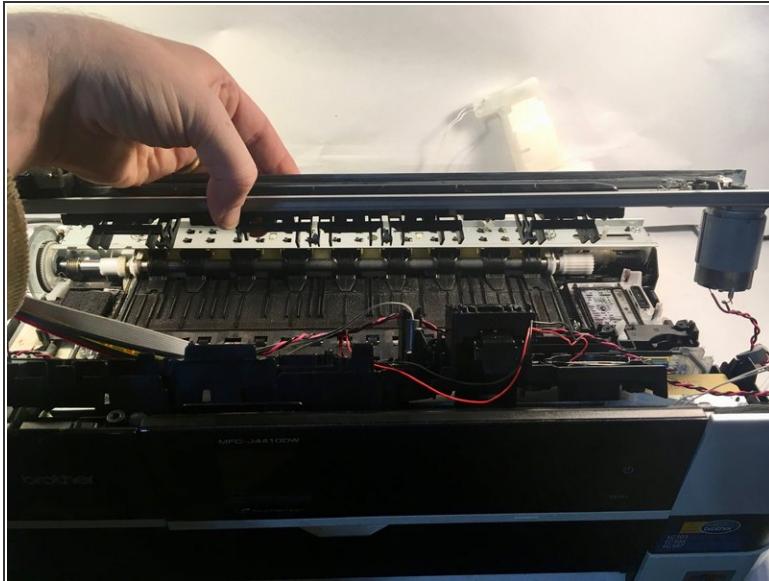
Step 38



- Remove the two 10 mm Phillips #2 screws holding down the carriage frame assembly.

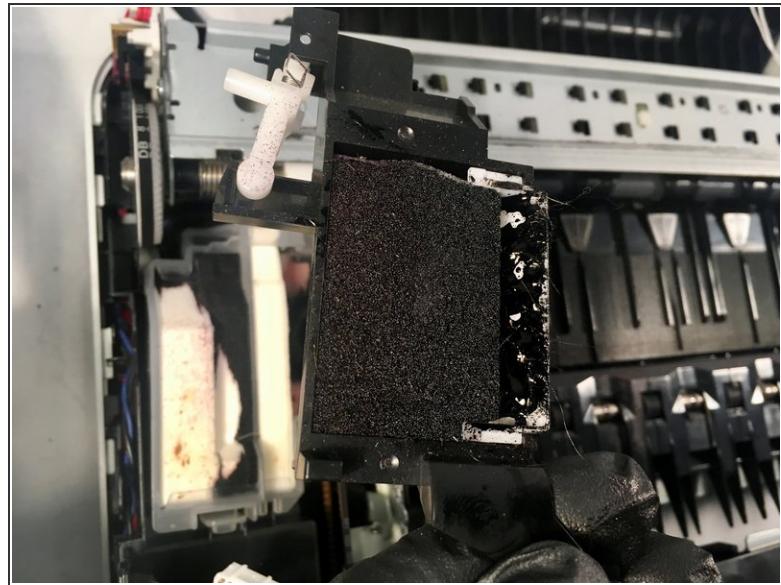
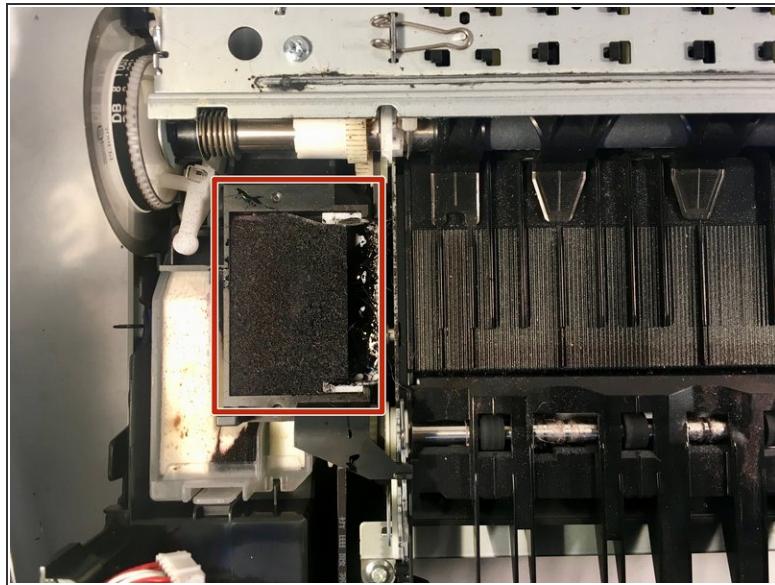
 Torque: $0.60 \pm 0.10 \text{ N}\cdot\text{m}$

Step 39 — Removing the carriage frame assembly



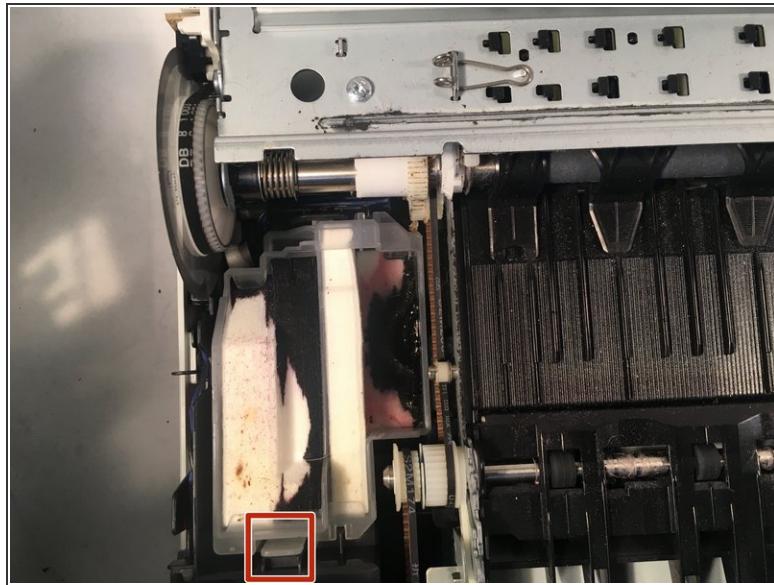
- Lift the carriage frame assembly out of the printer, making sure to keep the head/carriage unit over its release slots.
- ➡ When reinstalling, make sure it's seated properly. It may require some wiggling, but it will fit firmly when placed correctly.
- ⓘ Note these hooks, which have to be disengaged from the switchback frame assembly in front of it during removal. Just wiggle the carriage frame assembly around while lifting, and they should come loose.

Step 40 — Removing the flushing base



- Remove the flushing base by lifting it straight upwards.
- *(i)* You'll want a folded tissue or paper towel to set this down on.
- The flushing base, removed.

Step 41 — Removing the flushing box



- Remove the flushing box by disengaging the front hook, then tilting it up to disengage the rear hook.
- When reinstalling, just press it straight down.
- The flushing box, removed.

To reassemble your device, follow these instructions in reverse order. If you haven't already, it's recommended that you also [replace the ink absorber box](#) during reassembly.

Screw torques from the service manual have been included if you happen to have a torque screwdriver, but don't worry about them if you don't.

After reassembly, follow the following steps to reset the purge count in order to clear the "Ink Absorber Full" error:

1. Plug the printer in and turn it on.
2. Press the Home button (the house icon) on the front of the printer until the Maintenance Mode screen appears (approximately five seconds).
3. Hold down the blank button at the bottom of the screen until a number keypad appears on the screen (approximately two seconds).
4. Press *****, **2**, **8**, **6** and **4** (you can use the onscreen keypad or the printer's built-in keypad for this). The printer will beep and **MAINTENANCE** will appear on the screen.
5. Press **8** and **0**.
6. Press the down arrow repeatedly until **PURGE:** (or **FLUSHING:**) appears on the screen.
7. Press **2**, **7**, **8** and **3**. The printer will beep and **MAINTENANCE** will again appear on the screen.
8. Press **9** twice to exit maintenance mode and reboot the printer. You can also use this to start over if you make an error.