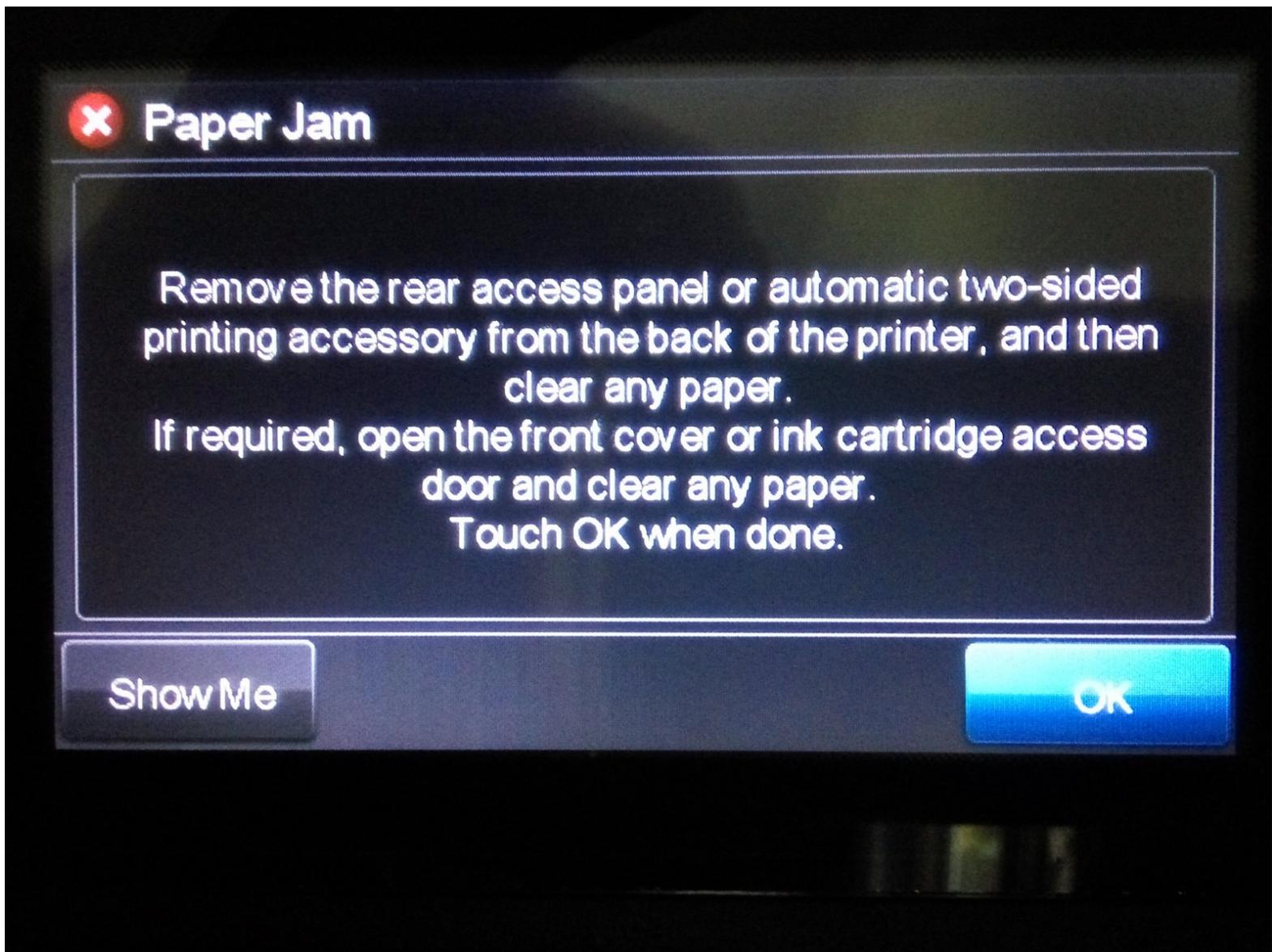




## Fix False Paper Jam Error.

"Paper Jam" is a very generic error, caused by the feed mechanism jamming. There is a spring in this printer that corrodes and causes this error.

Written By: Robert Backhaus



## INTRODUCTION

There are many things that can cause a paper jam error. First you must make sure that there is no debris stuck anywhere. If you have done this and there is still a paper jam, you could have this issue.

### TOOLS:

- T10 Torx Screwdriver (1)
- Spudger (1)
- iSesamo Opening Tool (1)
- Latex or nitrile gloves (1)

### PARTS:

- Generic spring, about 37mmx12mm, .65mm wire. (1)
- Good, sticky grease. I suspect the original was a brown lithium grease. I used lanolin, because that was what I had on hand. (1)

## Step 1 — Determine if the Spring Needs Replacing



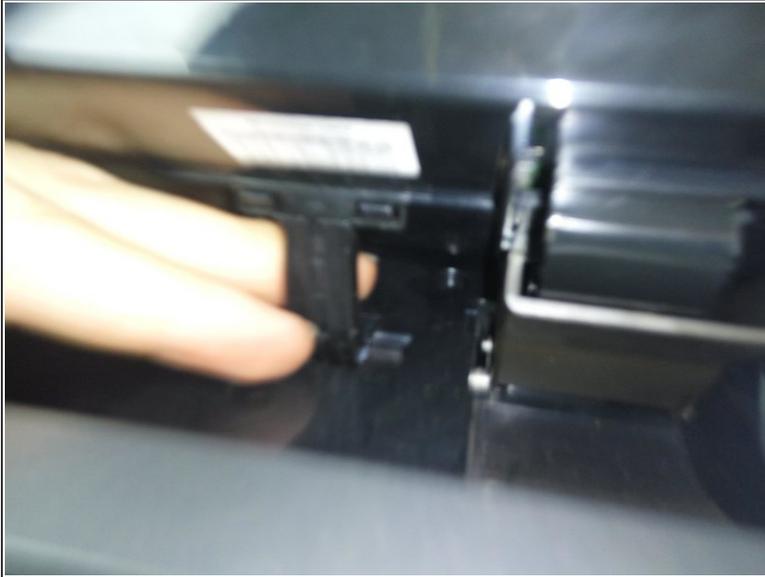
- The symptoms of this fault are:
- The printer displays a 'Paper Jam' error, and tells you to remove the rear duplexer, and says that you may need to open the front cover too. When you touch 'OK', nothing happens, unless you open and close the front door.
- When you open and close the front door and then touch 'OK', the printer mechanism moves a little and then it displays the error again. Occasionally the printer may move through most of a full initialization before stopping again.
- If you bypass the door close mechanism (place an opaque object in the rectangular slot on the left hand side), you will see that the paper feed rollers are moving a small distance back, the carriage moves to the left slightly, then the feed rollers move forward and stop.
- Shine a light into the printer, and check over on the far right for a small lever. This lever should slide to the right with gentle pressure, and spring back into position. If it doesn't slide back, try pulling it gently to the left.
- If you can move the lever back and forth but it doesn't spring, then you need to disassemble your printer and replace this spring.

## Step 2 — Prepare the Printer.



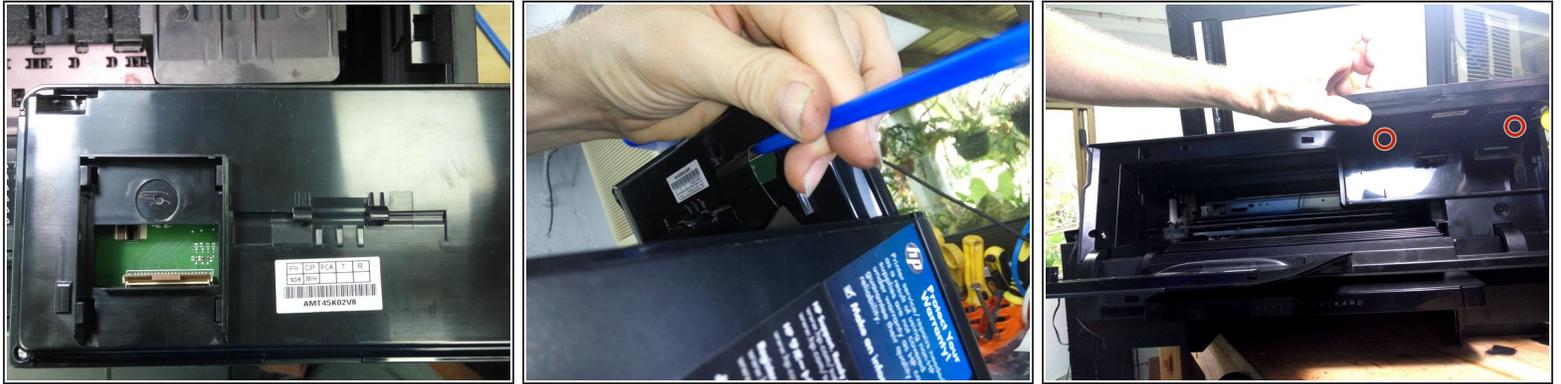
- Remove the printer from the optional second paper tray.
- Pull out the paper tray from the front, and the duplexer from the rear.
- Removing the print head (see the HP user guide) may also reduce the chance of ink leakage while working on the printer.

### Step 3 — Control Panel



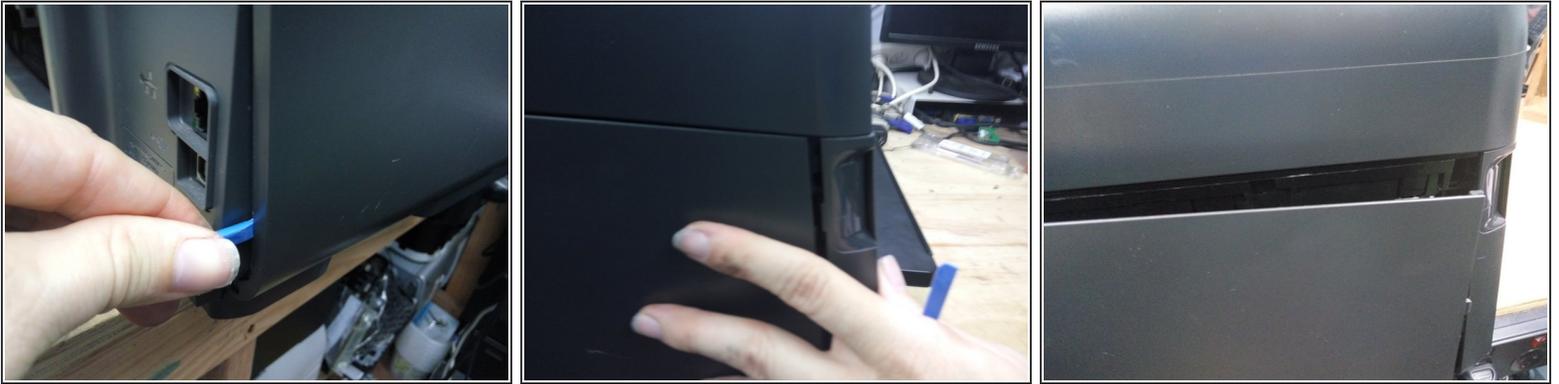
- Hold up the control panel with one hand, reach underneath it with the other, and pull firmly downward on the curved support to detach it from the display
- Lifting the display further up, reach behind the brown plastic cover, and pull it forwards to release it

## Step 4 — Control Panel



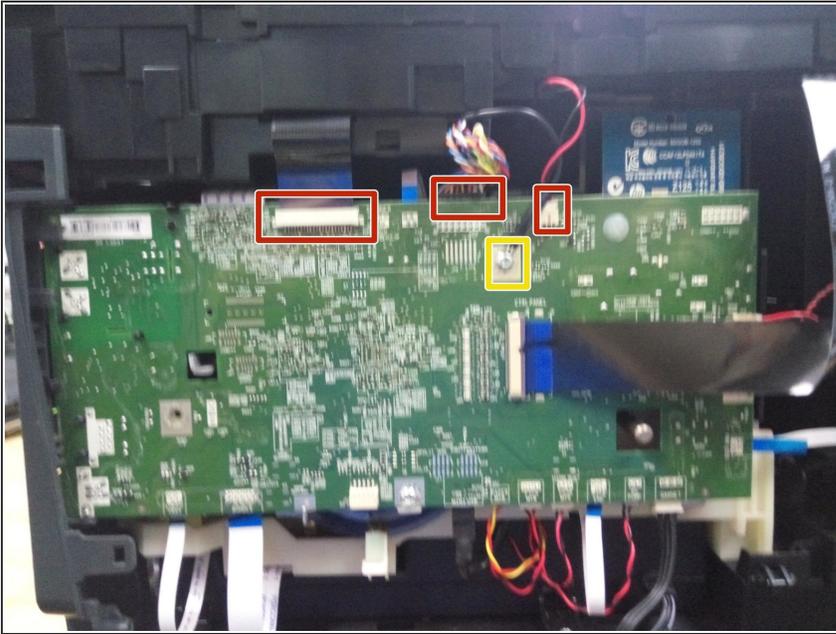
- Rest the machine on it's rear panel, so you can access the cable.
  - Lift up the brown clamp, and pull out the cable
  - Using a T-10 Torx screwdriver, undo the two screws beneath the display (pictured)
- i** The display remains attached to the scanner assembly for now. If you need to detach it from the scanner - for instance, to operate the printer while it is open - you can detach it once the scanner assembly is removed.

## Step 5 — Left Side (Controller Board) Panel



- On the back of the printer, remove the two screws on the right hand side (left-hand when viewed from the front).
  - Open the door on the front of the computer, and remove the one screw on the lower left-hand side.
  - Using a spudger lever firmly outwards on the lower rear side of the panel.
  - With your other hand, push the panel backwards, It will slide half a centimeter backwards and come free.
- i** Could you help me? It would be useful if you could take an image of the rear of the printer, add it to this guide, so the locations of various screws can be marked.

## Step 6 — Disconnect Cables



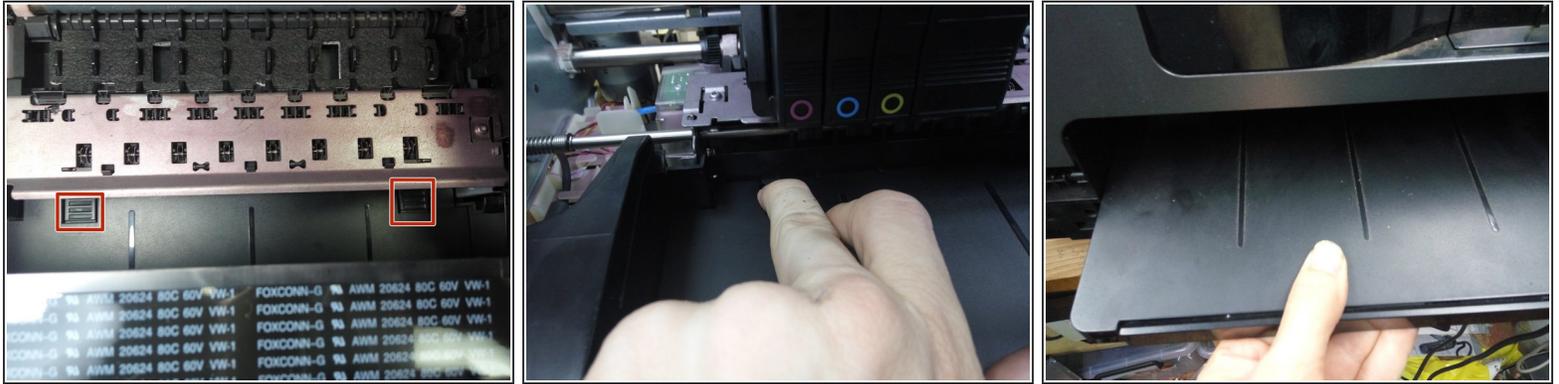
- Disconnect the scanner flatflex, sheet feeder and LED cables (marked in red).
- Remove the earth strap (marked in yellow).
- ⓘ No other cables need to be removed at this time.

## Step 7 — Remove the scanner assembly



- Remove the remaining screws around the top of the printer.
  - Lift the scanner assembly away from the printer.
- i** If you need to detach the display, lay the scanner assembly upside down, lower the display assembly, push it to the right, and then adjust the angle of the display until it drops away from the scanner. Reconnect it to the flat-flex cable, and clip the support back into the rear to hold it. The printer will operate normally without the scanner.

## Step 8 — Remove the output tray



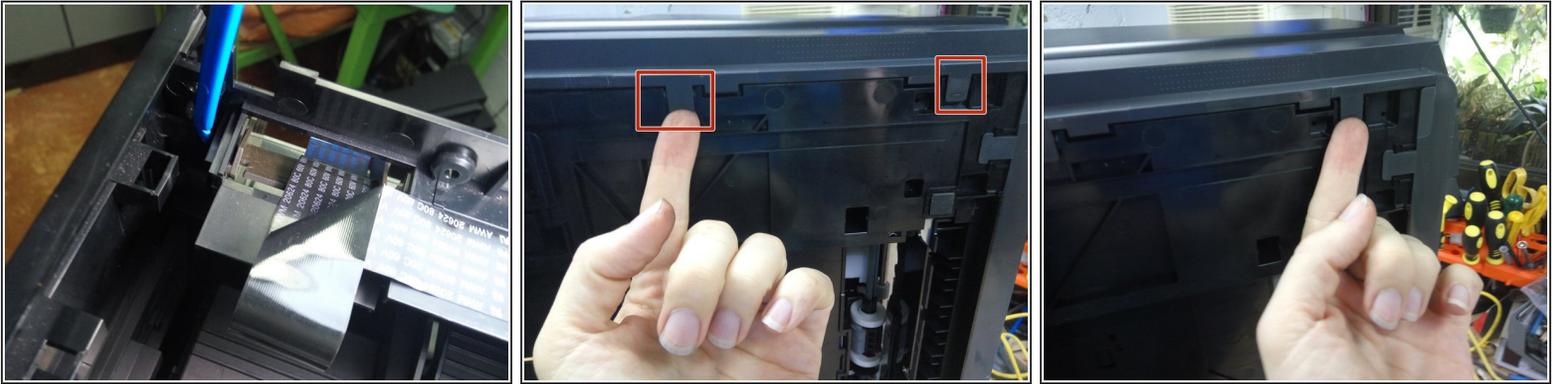
- Depress the two clips at the rear of the output tray, and pull the tray forward.
- Rest the printer on its rear panel, depress the two clips under the tray, and slide the white support clear of the tray.
- Pull the output tray clear.

## Step 9 — Remove the right hand side panel.



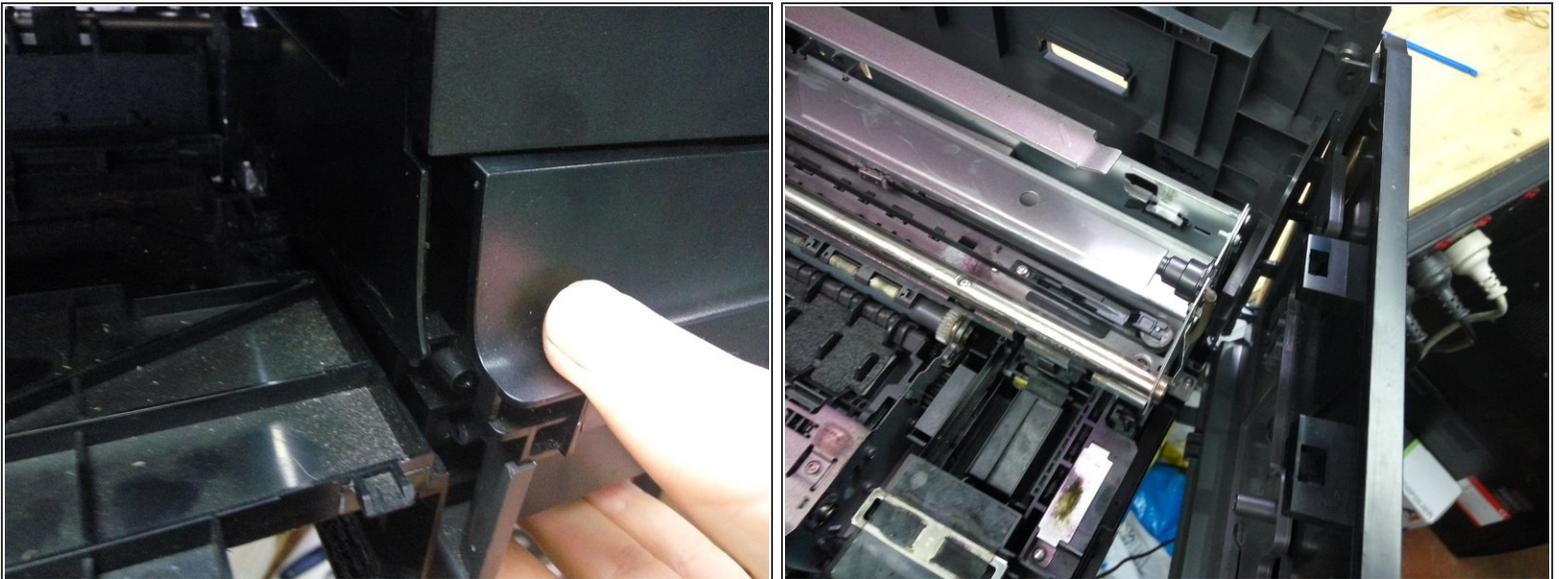
- Remove the single silver screw (pictured)
- Remove the two screws from the rear left-hand side (right hand when viewed from the front)

## Step 10 — Remove the Right-Hand Side Panel (cont.)



- Release the one clip on the inside front of the panel.
- Release the two clips on the underside of the printer.

## Step 11 — Remove the Right-Hand Side Panel (cont)



- Pull outwards on the front to release a hidden clip.
- Rotate the panel outwards until the clips on the rear of the panel detach.
- ⓘ If the panel doesn't detach easily, it may help to remove the screws securing the back panel first.

## Step 12 — Remove the rear panel



- Remove the remaining screws on the rear of the printer.
- Release the two clips on the underside of the printer.
- Detach the rear panel.

## Step 13 — Remove the power button cover



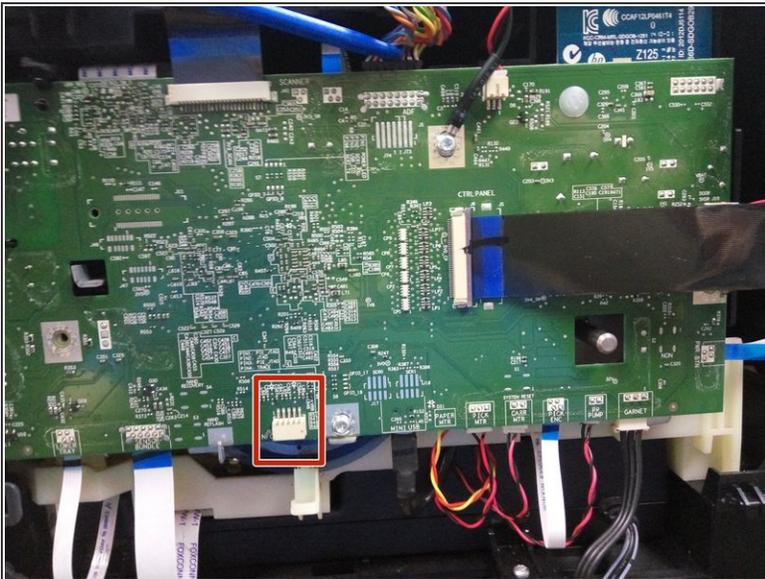
- Using multiple tools and considerable force, unclip the power button cover from the bottom.
- ⓘ Concentrate on the points marked with arrows. This is the location of the clips. Forcing a plastic spudger in at these points should release this cover.

## Step 14 — Remove left-hand quarter trim



- Release trims in the left-hand quarter panel
- There are clips on the side, underneath, and two from the top.

## Step 15 — Detach the front door.



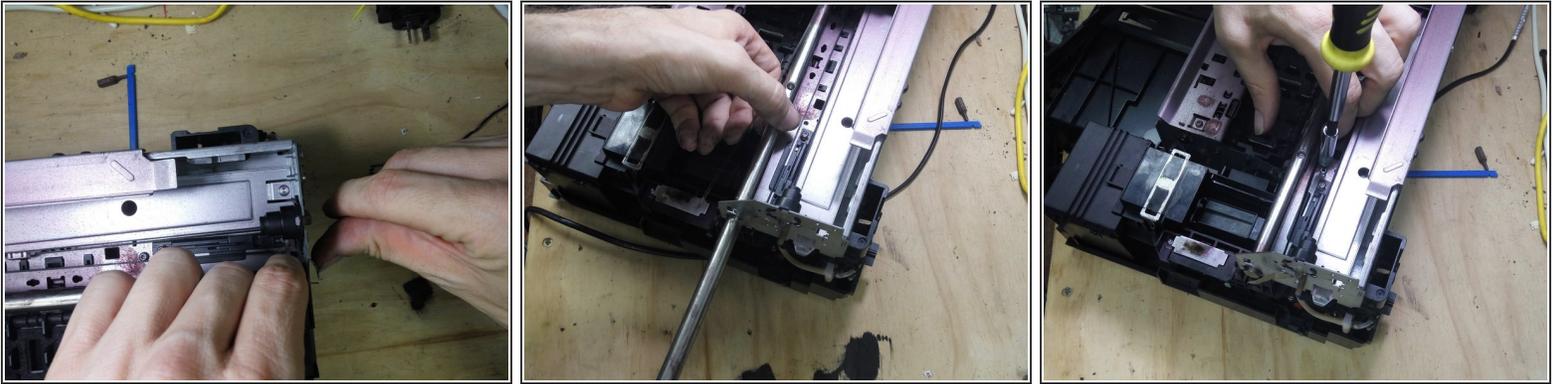
- Detach the NFC connector from the circuitboard, (Socket location marked in red) and pull the cable free from its restraints.
- Bend the flexible flap attached to the front door upwards, then pull the studs free from the guides.
- Pull the three hinges out of their clamps, and remove the front door.

## Step 16 — Remove the Front Panel



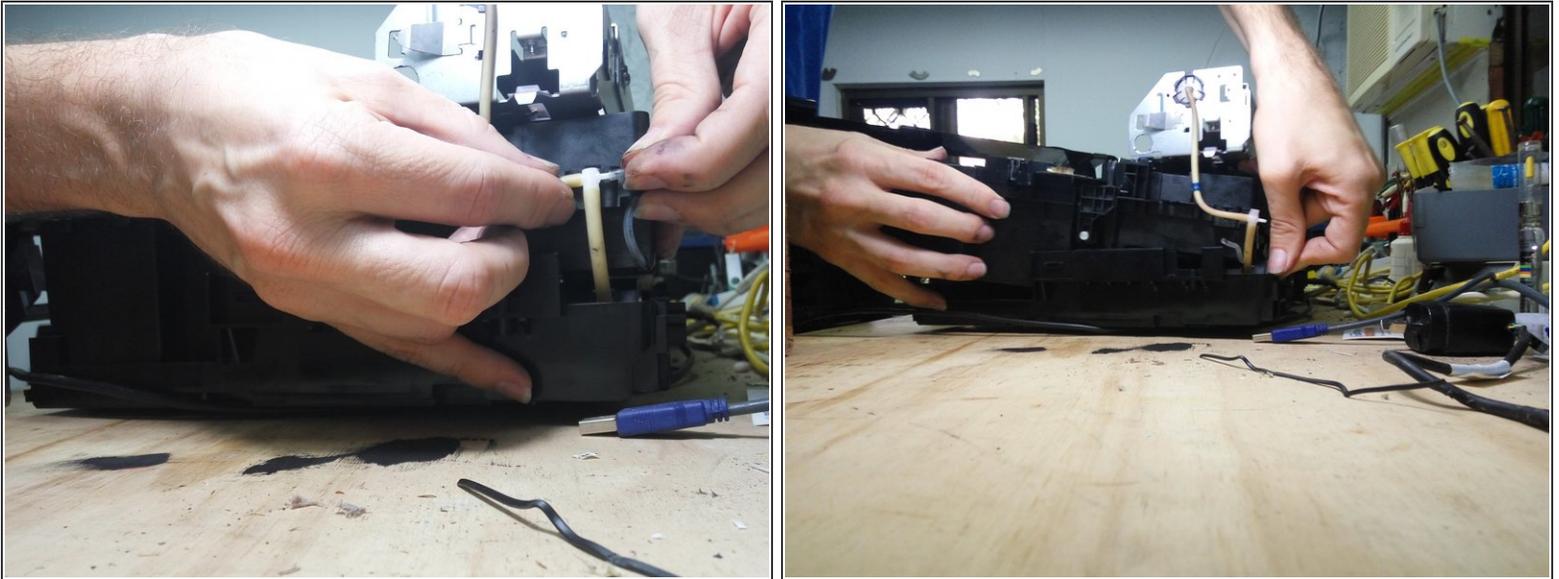
- Remove the power button, door sensor, and USB cables from the circuit board.
- Slide back the catch on the Ctrl Panel socket, and remove the flat-flex.
- ⓘ Many repairs may not require this panel to be fully removed, so these cables may be left attached, if care is taken not to damage them.
- Remove the 2 screws on the front left, and the one on the front right.
- Release the clips in the paper output area
- Release the two clips on the underside of the printer.
- Pull the front panel free.

## Step 17 — Release the carriage support.



- Remove the three screws from the bracket between the end of the carriage support and the case. Remove this bracket.
  - With clean hands or gloves, depress the sprung bracket on the right, and release the plastic sensor strip. Then undo it from the hook on the left side. Lay it over the print head, and secure it with a clean object.
- ⚠** It is essential that you do not crease, twist or soil this strip. Small amounts of ink can be removed with a mild solvent, such as isopropyl alcohol, but other solvents may remove the fine lines printed on it. It may be safer to remove it at this point, but it is hard to feed it back through the print head assembly.
- Remove the two bolts holding the steel rod to the chassis, and slide it out of the printer.
  - Undo the two bolts holding the right side of the carriage support.
- i** The rear bolt is in a deep hole, so if you are using a bit set and handle, you will need to get creative!

## Step 18 — Remove the Cleaning Station.

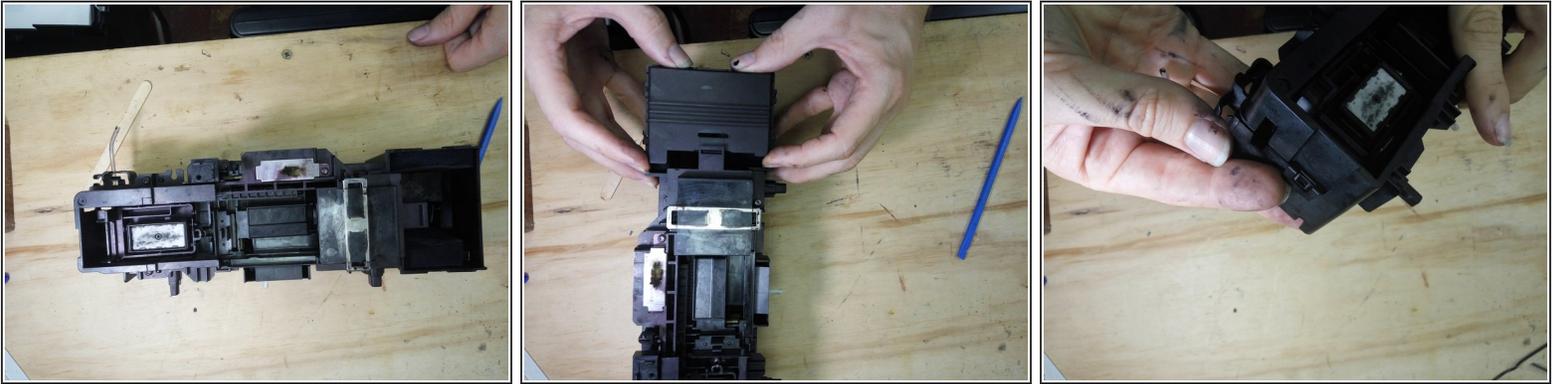


- Undo the single screw attaching the cleaning station to the carriage support.

**⚠** If you have not already done so, put on your gloves now. The cleaning station is full of ink, and you can't handle it without getting ink on you.

- Release the air lines from the clips in the cleaning station.
- Detach the smaller hose from the T joint.
- Pull up on the carriage support. This should give you enough room to work the cleaning station out of the printer.

## Step 19 — Dissassemble Cleaning Station



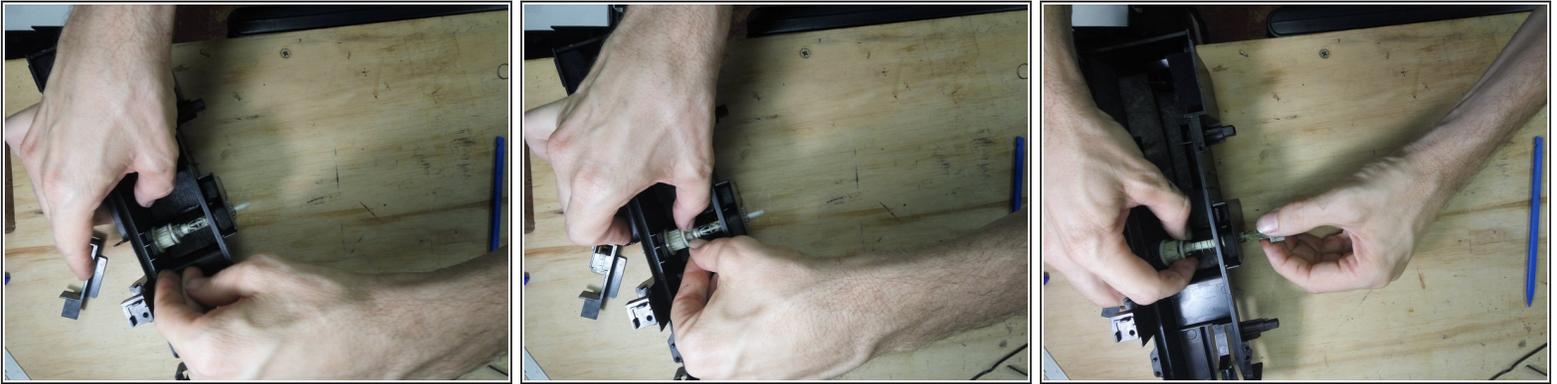
- Release the clip on top of the station, and slide the front cover off
- Undo the 4 screws on top, release the clip on the rear of the station, and lift off the top cover.

## Step 20 — Continue Disassembly



- Lift out the wiper/cap assembly.
  - Release the clip on the left hand side, and remove the small moulding.
  - Carefully spring back the small black plastic blade retaining the lever, and lift it up out of the assembly.
- ⚠** This small plastic blade is thin and fragile. Push it back just enough to allow the support to push past it.

## Step 21 — Disassemble Sprung Cog Assembly



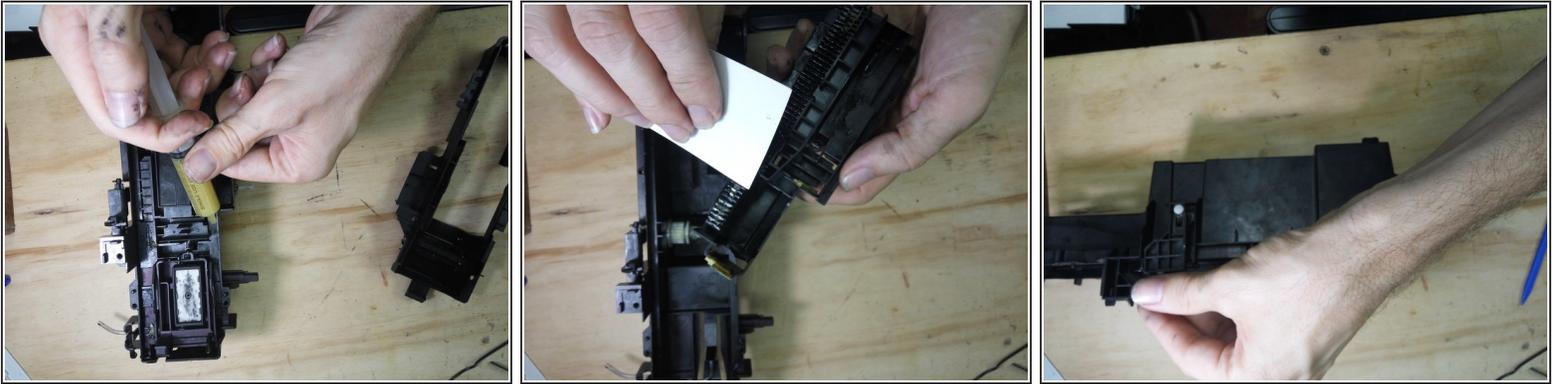
- You should now be able to see, covered in lots of ink, the broken spring. My pictures were taken during reassembly, after I had given everything a thorough cleaning.
- ⓘ It is much nicer to work on this if you first give it a thorough cleaning. To do this you either need to remove the ink-soaked pads, (some of which are glued in), or wash the entire assembly with the pads in place, which means you will need to leave them a long time to dry.
- ⓘ My replacement spring, shown in these pictures, was wound from some fine music wire I had on hand. It is too flimsy, but seems to work OK. You should use a more substantial spring than this.
- Open the clips on each side of the bar, allowing the spring retainer to move.
- Slide the bar out the left hand side of the cleaning station, pulling the end cog and the spring retainer off the bar.

## Step 22 — Reassemble the Sprung Cog Assembly.



- If you have not cleaned the entire station, at least wash the parts of the cog assembly, and mop up some of the ink in the station with paper towels or shop rags.
- Poke the bar in through the left side, then place over it the replacement spring and the spring retainer. The clips of the retainer go towards the spring. Do not slide the retainer all the way home yet.
- Place put the sliding cog over the bar, taking note of the direction. Slide the spring retainer home. The sliding cog will locate in the hole in the housing on the right.

## Step 23 — Reassemble the cleaning station



- Replace the small molding on the left side.
- Apply grease to the cog, bar, the rack under the wiper assembly, and any other places where the parts slide against each other.
- Replace the lever. Ensure it hooks into the end of the white sprung cog assembly. Ensure that the lever moves smoothly back, pushing the cog on the other side out, and then springs firmly back into position.
- Replace the top cover and secure it with the 4 screws.
- Replace the front cover.

Proceed to reassemble your printer, working back through the instructions in the reverse order. You can test your repair as soon as you have restored the carriage support, plastic encoder strip, and reconnected the cables connecting the front panel switches and control panel.