



HP Photosmart 7520, 7510, 7525, 7515 paper pickup gear Repair

It is a design flaw to connect a nylon gear on...

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INTRODUCTION

It is a design flaw to connect a nylon gear on a splined shaft. the nylon will eventually strip, (Thank you Mrs. Fiorina for telling your engineers to do it cheap.) The goal of this procedure is to show you how to get to the gear and secure it to the shaft.



TOOLS:

- [TR10 Torx Security Screwdriver](#) (1)
- [iFixit Opening Tool](#) (1)
- [High Content Rubbing Alcohol](#) (1)
- [220 Grit Sandpaper](#) (1)
- [Nitrile Gloves 100 Box](#) (1)
- [Paper Towels](#) (1)
- [Flashlight](#) (1)
- [desk lamp](#) (1)
- [Tweezers](#) (1)



PARTS:

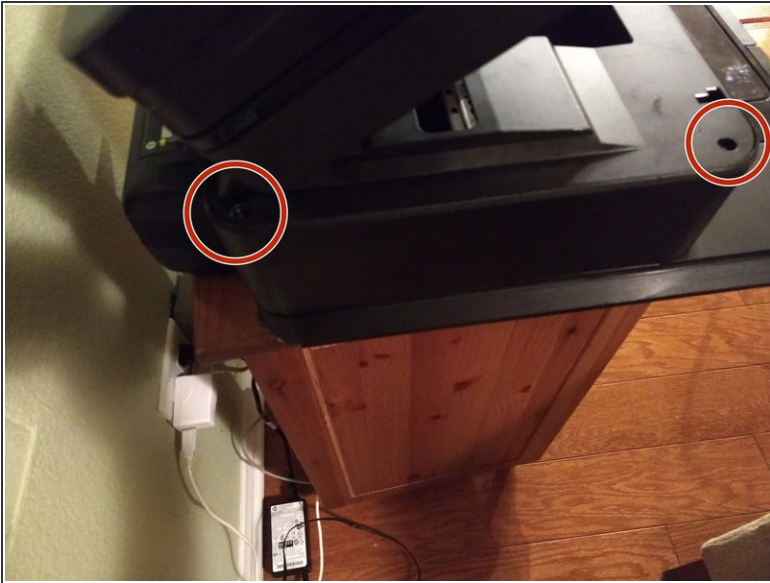
- [JB Weld Epoxy](#) (1)
- [Super Glue \(Cyanoacrylate\)](#) (1)

Step 1 — Remove cartridges, and lower side panels



- Review this [utube video](#) You won't be doing all of that, but it's a good place to start.
- Remove the ink cartridges, the duplexer/paper-jam-access-cover and the paper tray.
- Remove lower side covers.
 - This is done by prying out the edge of of the cover that is next to the paper tray and pushing the edge out.
 - Once this face is out, push the cover back.

Step 2 — Remove left cover



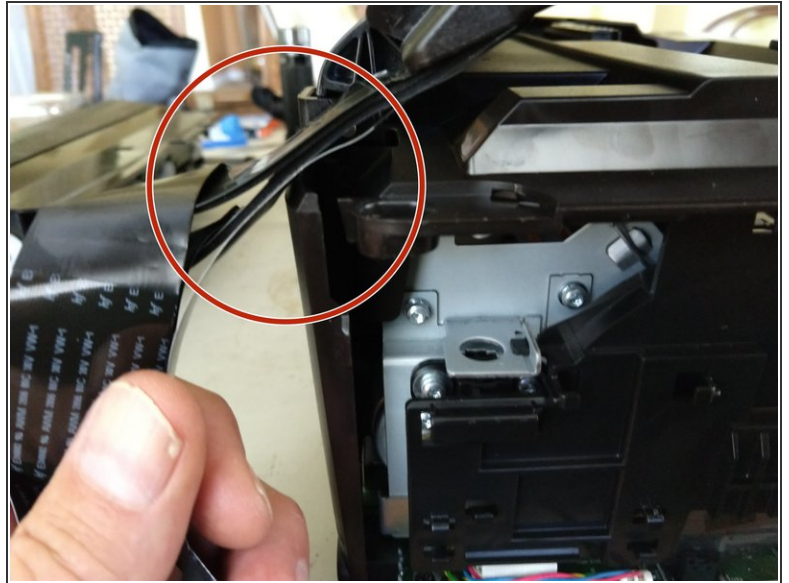
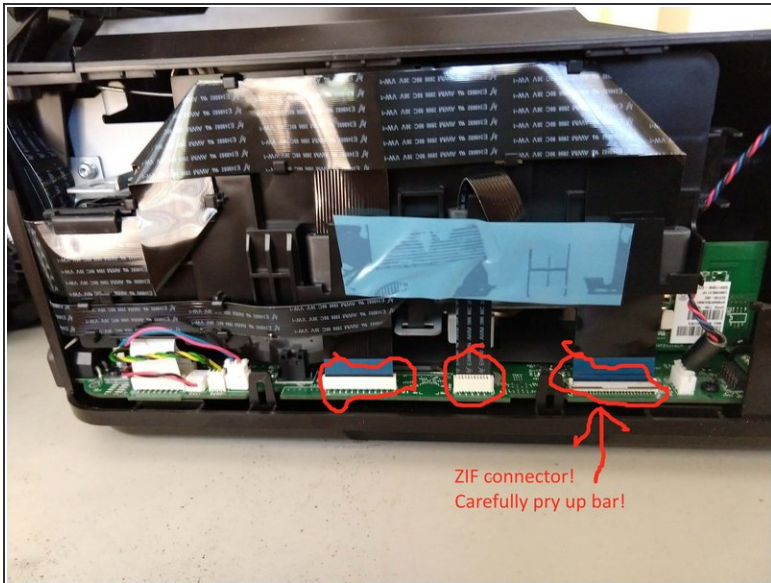
- Remove 2x 15mm pop off right cover.
- Split the part on the front and back, then the top. Pry up the top and tilt the top of the panel open, then pull the cover up and out.

Step 3 — Remove right, left covers and paper tray covers



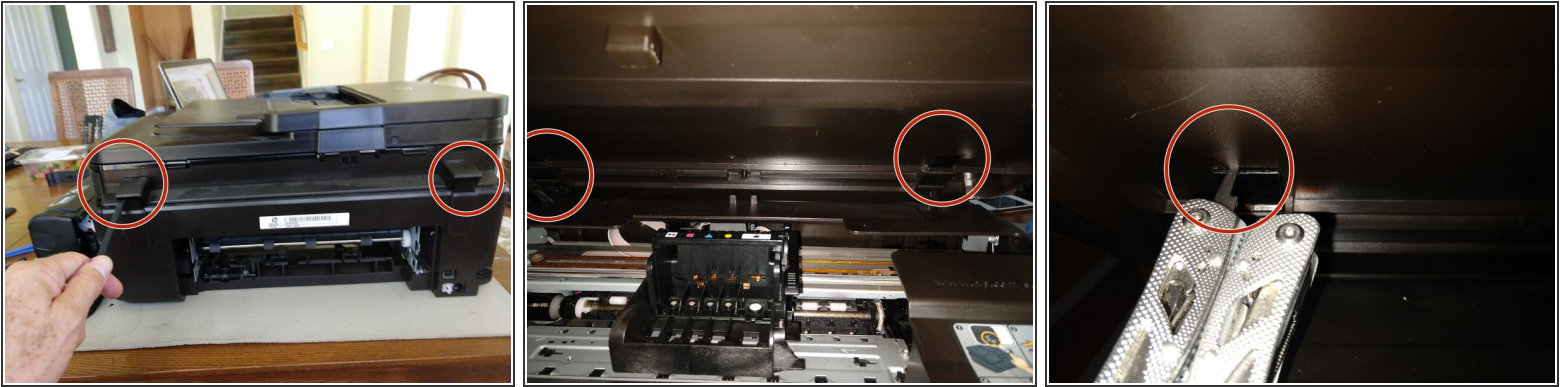
- Remove two 10mm screws.
- Lift and pull out right cover
- Note the left cover is plugged into the motherboard. Lift front, pull out.
- lift off paper tray cover

Step 4 — Disconnect three cables



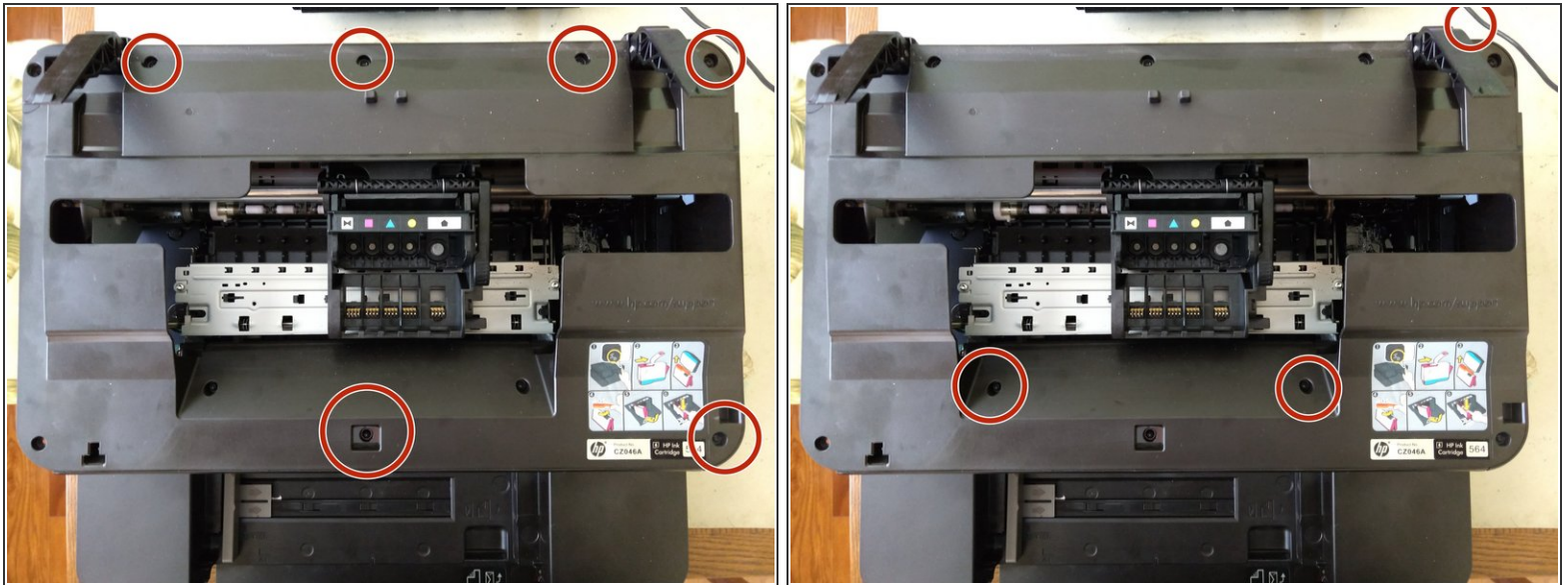
- Be gentle.
- IMPORTANT, one has ZIF (zero-insertion -force) connector. Lift up the bar and then remove the cable. During reassembly, ensure the bar is up, insert the cable and push the bar down.
- The cables go through ferrite collars. Leave the collars in place, but be sure to put the cables back through the collars during reassembly.
- carefully move the cables to the back

Step 5 — Remove the top assembly



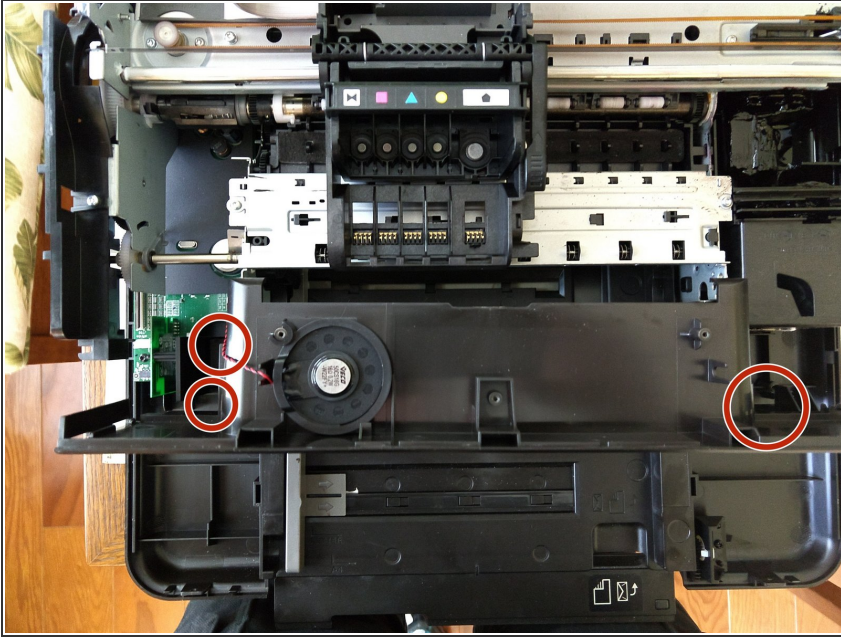
- Pop off two covers in the back.
- Unsnap the hinges. This is tricky. Gently push the top assembly up. This will create a small gap between the hinge and the top. Slide a thin prying tool into the gap and pull gently down to release the hinge.
- Once unsnapped, pull the top assembly away from the hinges. (You did carefully move the cables to the back before this step, right?)

Step 6 — Remove top cover



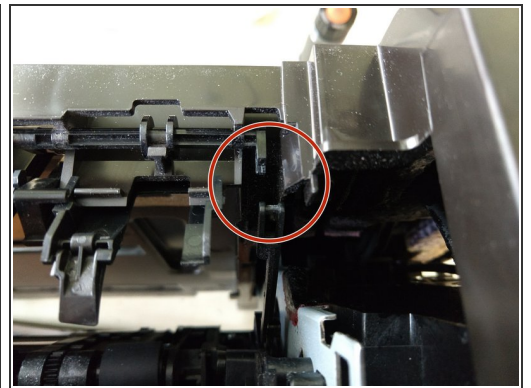
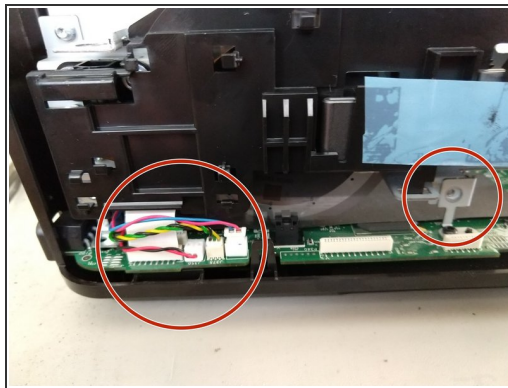
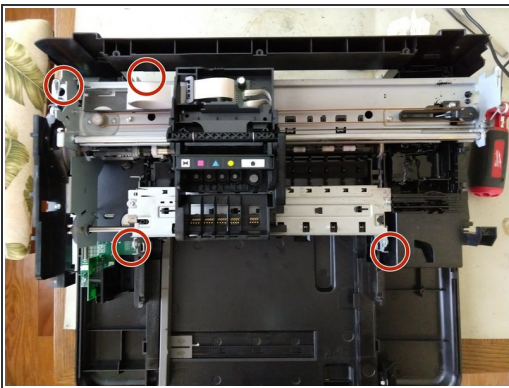
- Remove 6x 15mm screws
- remove 3x 10mm screws, the third one is on the back.
- disconnect the red/blue cable from the motherboard on the side and unhook from guides.
- lift off top
- Remove right side

Step 7 — Remove front panel



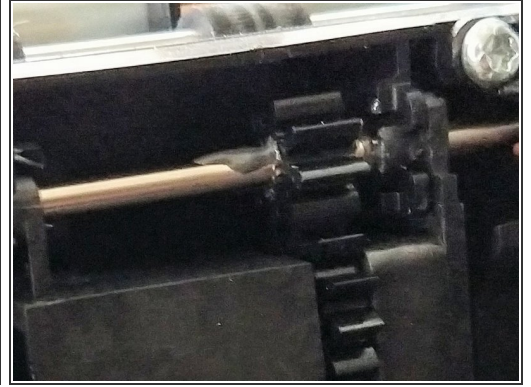
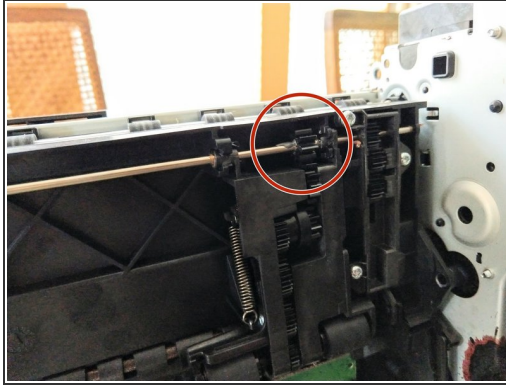
- Disconnect the front panel from the motherboard
- Remove 2x 15mm screws.
- Lift out front panel

Step 8 — Prepare printing engine for postioning



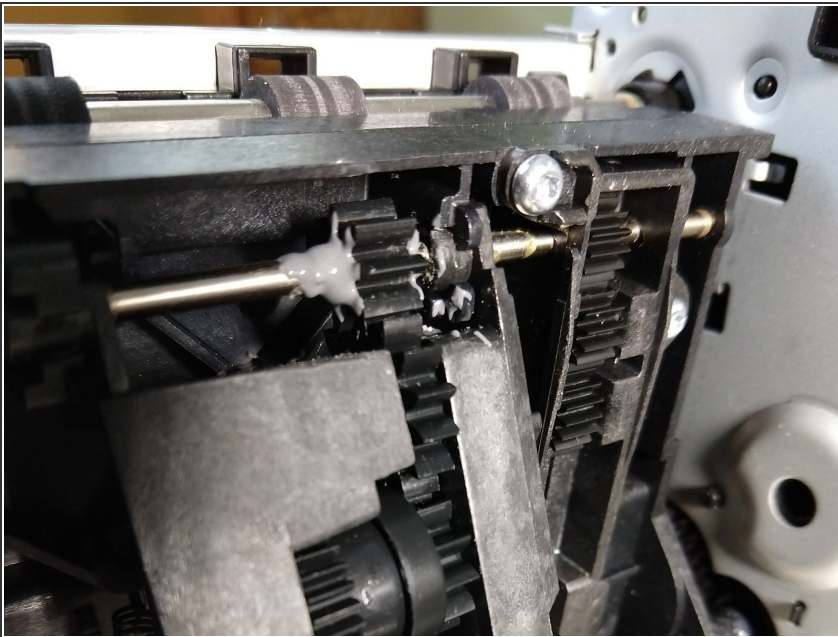
- Remove 4x 15mm screws
- Remove 1x machine screw and disconnect remaining cables..
- Disconnect linkage

Step 9 — This gets messy, have paper towells



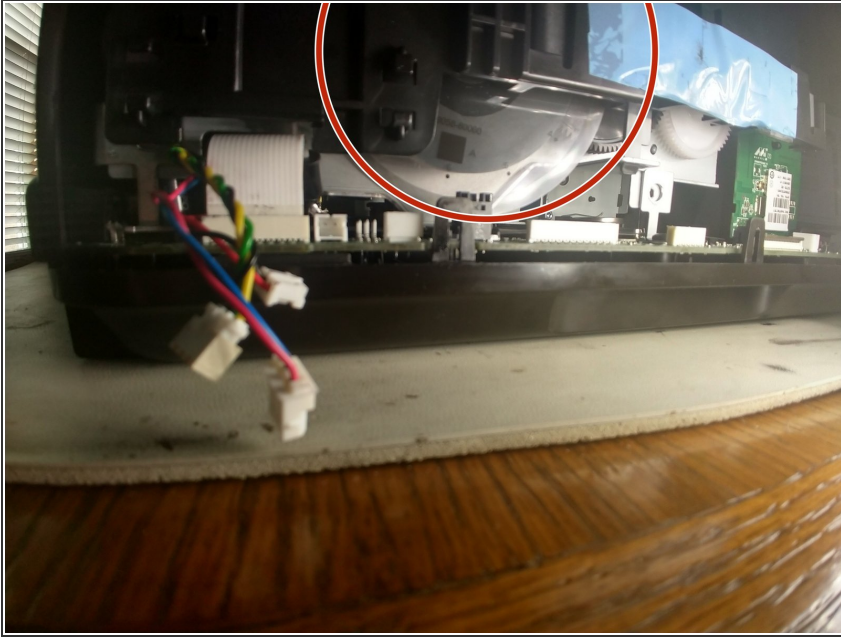
- A lot of tubing needs to stay connected. If it comes loose, it's really messy and hard to do.
- Position the printer like the picture shows.
- The second and third pictures show the location of the problem. I had tried the non-disassembly procedure, but it failed for me. You can see a glob of JB Weld.

Step 10 — Wingin' it



- OK, I got you here. I'm going to try to:
 - clean off all the JB Weld
 - Slide the gear over
 - put a couple of drops of Superglue on the splines, push the gear back over the splines and let cure while I eat a sandwich
- Mix up some JB Weld and ensure that I get it 360 degrees and both sides. Wish me luck!

Step 11 — Just put it back together in reverse order...ha, ha!



- It's not much fun getting that printer engine back on. Put on your latex gloves.
- Before you start, though, clean up those pinch wheels that grab the paper. alcohol, let dry, sandpaper them a little.
- **IMPORTANT:** Get rotary-pulse encoder, then clear plastic disk, needs to be clean and go into that "slot" (which is an opto-coupler, that counts the pulses).

The fact that you are here trying to fix this printer is a testament that, ultimately, it was the greed of the top level management that requires this fix.

Yeah, I had a really hard and messy time getting the print engine back in place. The epoxy hasn't cured yet, so I don't know if I fixed it or bricked it.