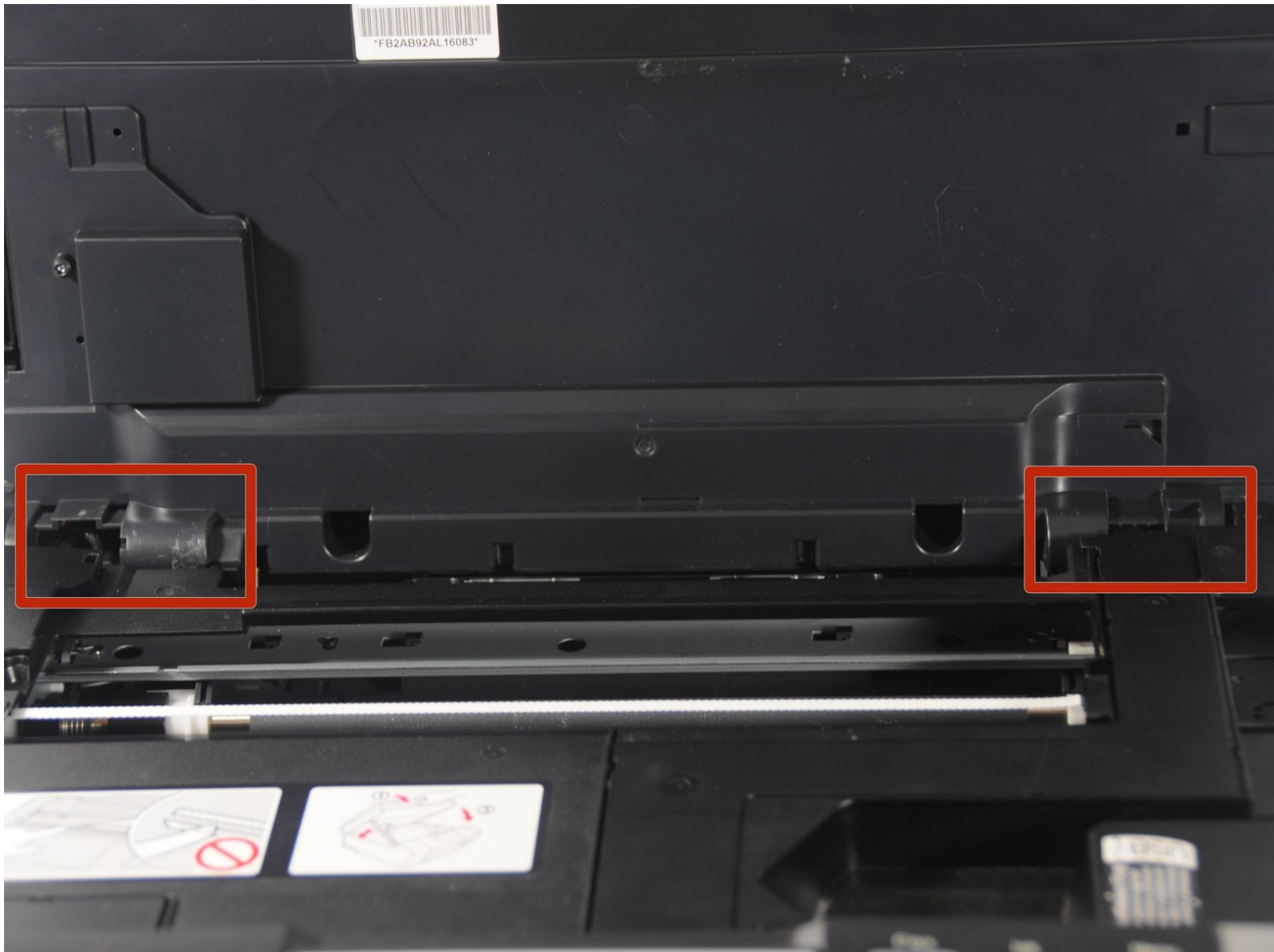# Brother MFC-490CW Motherboard Replacement

Use this guide to replace the motherboard of your Brother MFC-490CW printer.

Written By: Henry Cho

INTRODUCTION

If none of the functions on the device is working, the motherboard may need to be replaced, particularly if the device experienced an electrical surge that overloaded the motherboard.
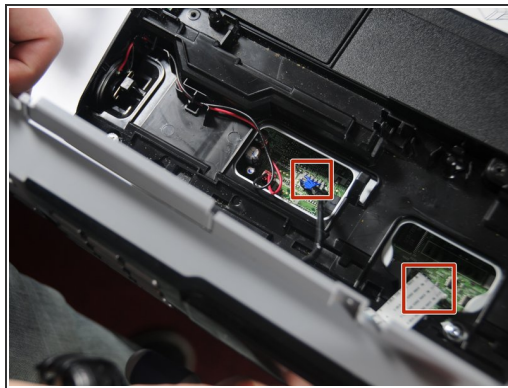
🔧 TOOLS:

- Phillips #2 Screwdriver (1)
- iFixit Opening Tools (1)
- Spudger (1)

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Step 1 — Remove screws holding the front panel

- Unscrew these three 12.1mm screws holding the control panel in place.

Step 2 — Unplug the panel from the rest of the printer

- Lift up the front panel from the device.

- Gently lift up and pull out the data cables that attach the panel to the printer.

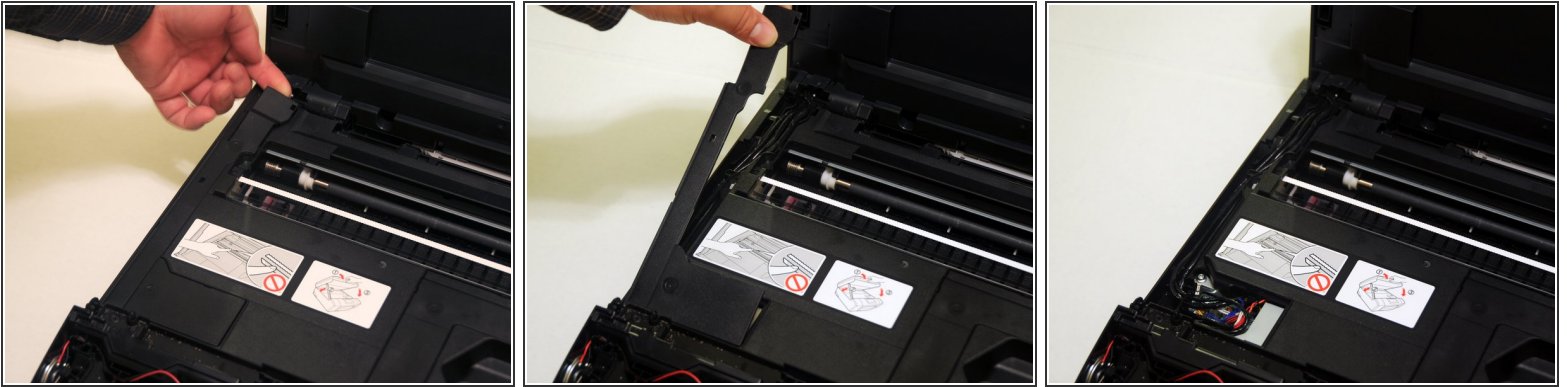## Step 3 — Separate the arm from the scanner unit

- (i) Before removing the unit, apply a 2 to 3 pieces of tape to secure the top and bottom of the unit.
- Lift the scanner unit.
- Gently twist the top portion of the arm. The top portion should release from the scanner unit.
- Rotate the arm approximately 45 degrees to remove the bottom portion of the arm from the device.

Step 4 — Remove the scanner unit from the device

- Slide the unit either to the left or right and begin the push the unit away from the device.
- Once one hinge is separated from the device, begin to remove the other hinge from device.
- Gently place the unit on the work surface.
- ⚠ Be careful not to pull too hard. The wires connecting the unit from the device must be removed.

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Step 5 — Remove left wire panels

ⓘ While it is not necessary to use a prying tool, use a thin prying to to lift the panels.

● From the back of the device, use the expose portion of the panel and gently begin to remove the panel away from the device.

Step 6 — Remove right wire panel

● From the back of the device, use the exposed portion of the panel to begin to lift the panel away from the device.

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Step 7 — Removing left set of power cables

(i) Before removing the cables, create a diagram of the locations of the different cables. Then, label the cables with some tape or using post-its.
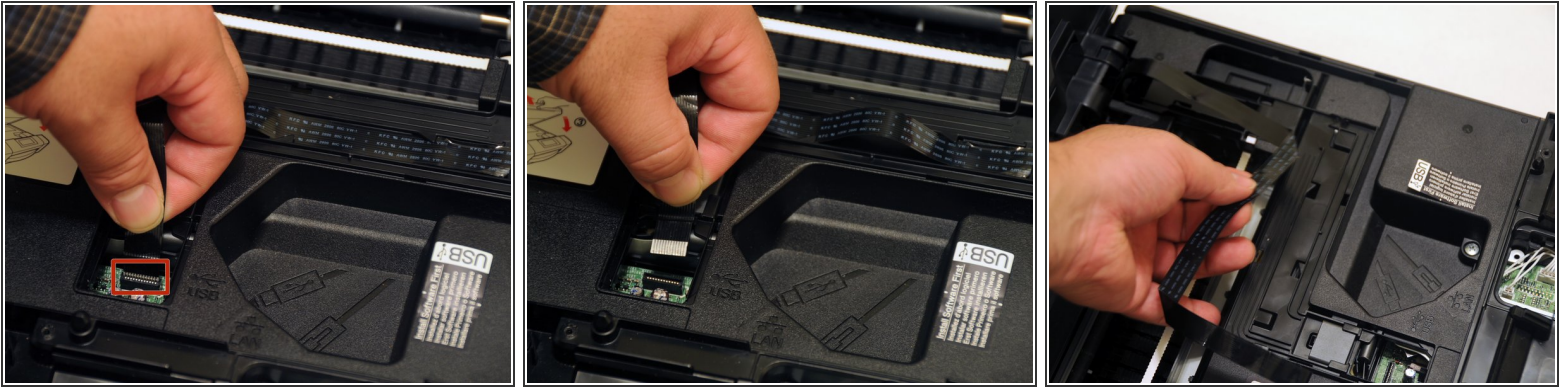
● Remove the three power cables that connect the scanner to the motherboard.

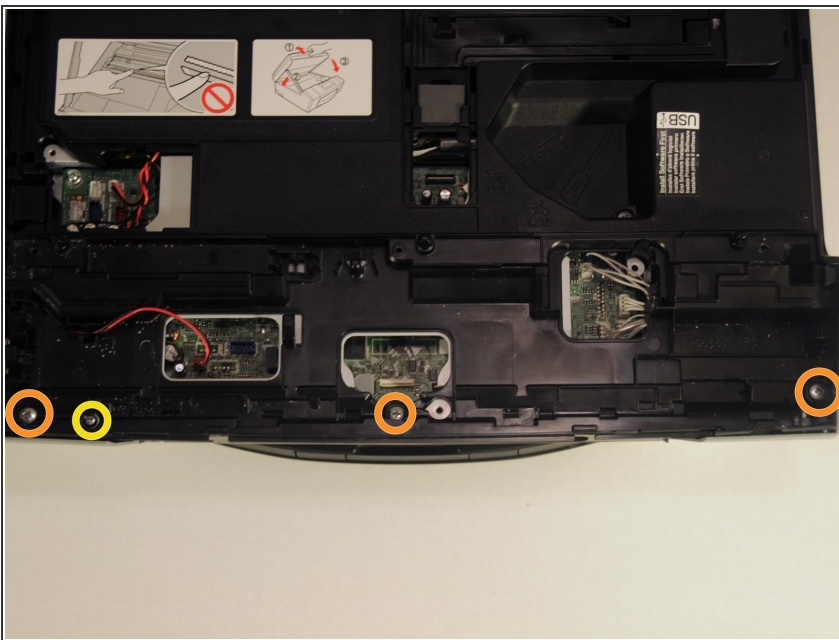## Step 8 — Remove the ground wire

● Unscrew the 12.1mm screw to remove the ground wire.

Step 9 — Remove data cable

- Gently pull the data away from the motherboard.

- Slide the cable out of the slots to remove the cable from the device.

- The scanner unit is now separated. Place the unit and ground screw in a safe part of the workspace until needed for re-assembly.

Step 10 — Remove front screws of the device cover

- Unscrew the three 14.1mm screws.

- Unscrew the 12.1mm screw.

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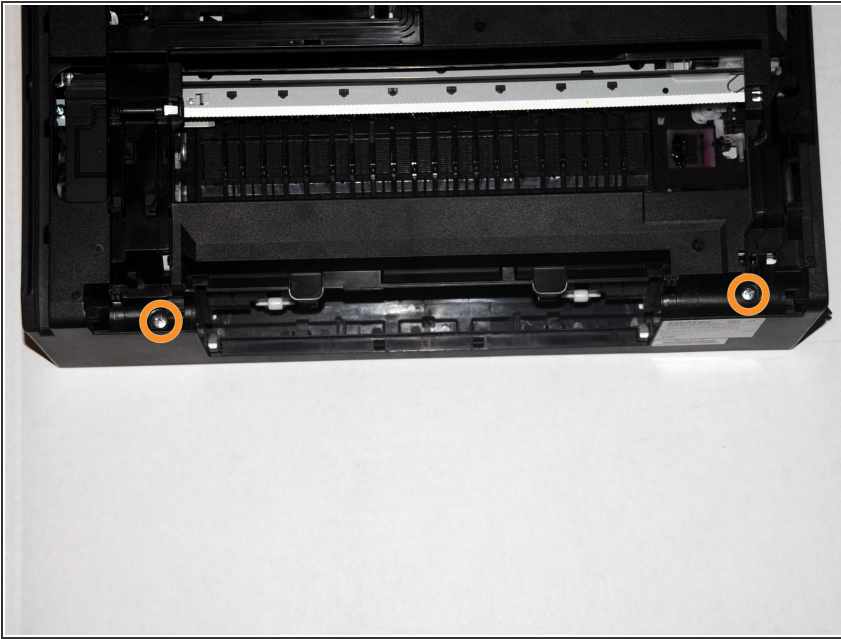## Step 11 — Remove the paper tray

● Pull the paper tray away from the device.

Step 12 — Remove center screw near the USB and ethernet ports
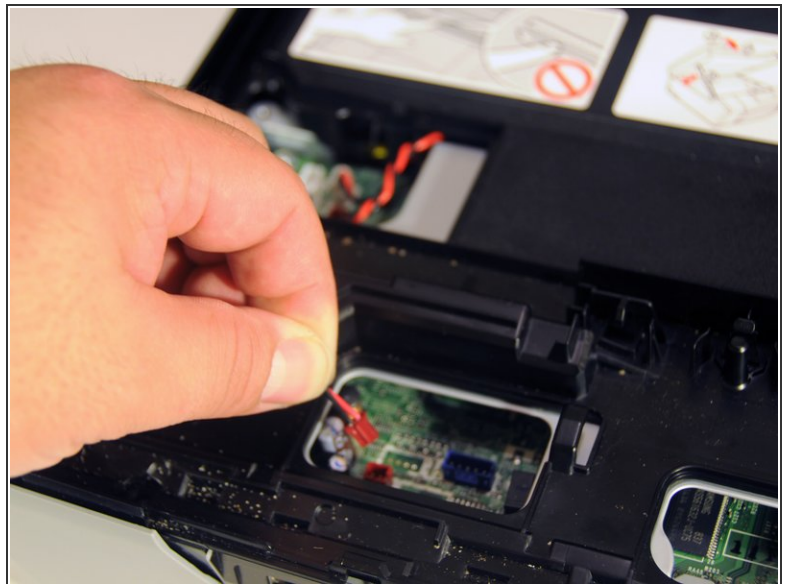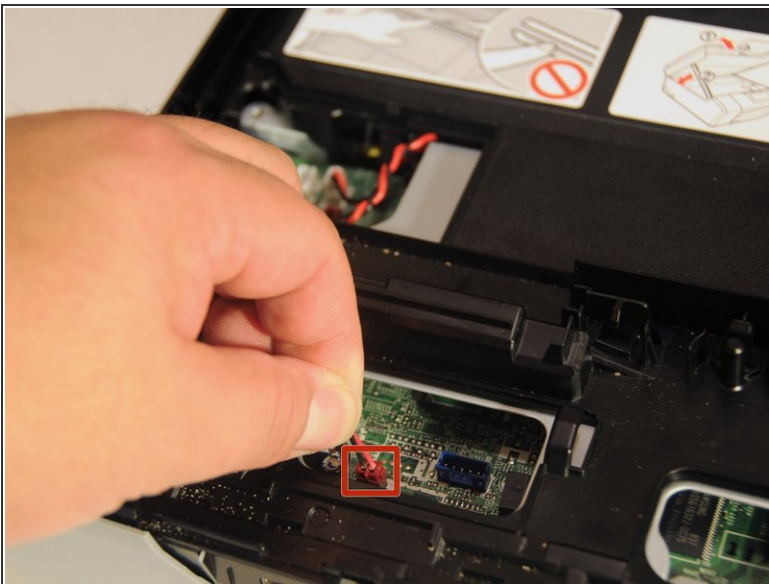

● Unscrew the 8mm screw at the center of the device.

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Step 13 — Remove rear panel screws

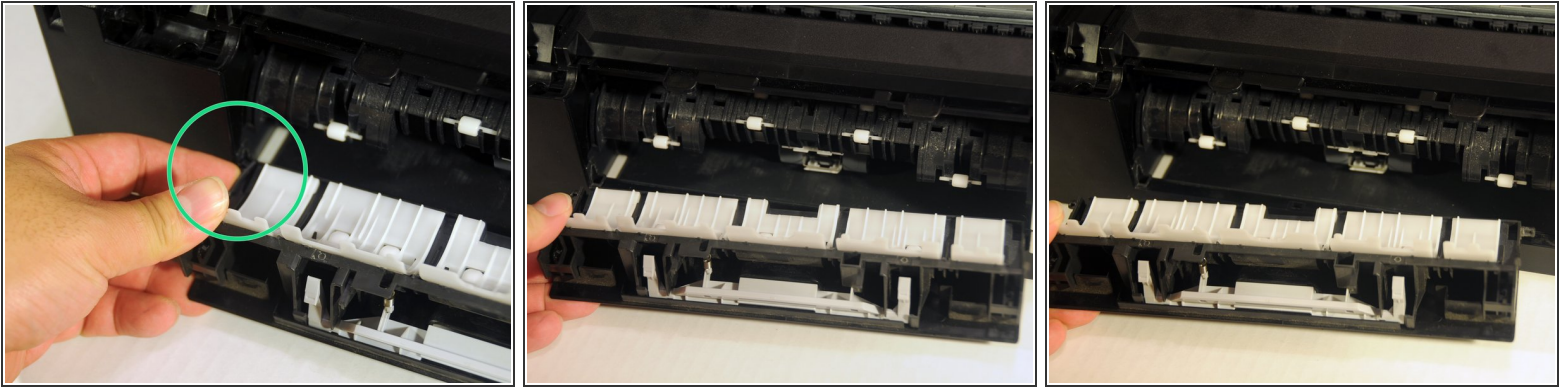- Unscrew the two 14.1mm screws holding the panel in place.

Step 14 — Remove red power cable

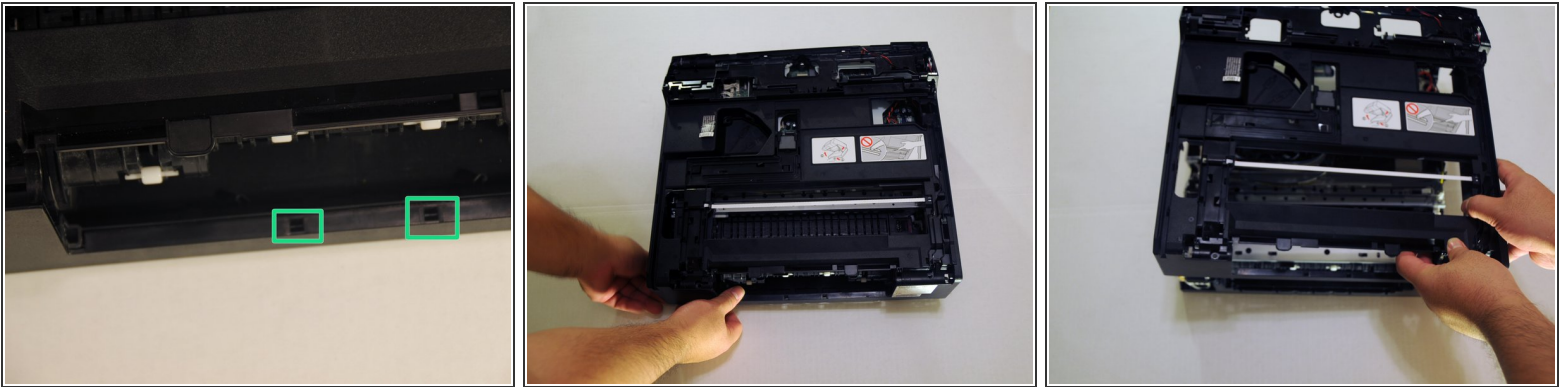- ⓘ This cable needs to be removed to allow the removal of the device cover.

- Gently remove the red power cable from the motherboard.

Step 15 — Remove paper jam clear cover

- Gently push the upper-left tab of the cover and separate the hinged portion of the cover from the rest of the device.

- Once one side of free, slide the other side away from the device.

- Pull the cover away from the device.
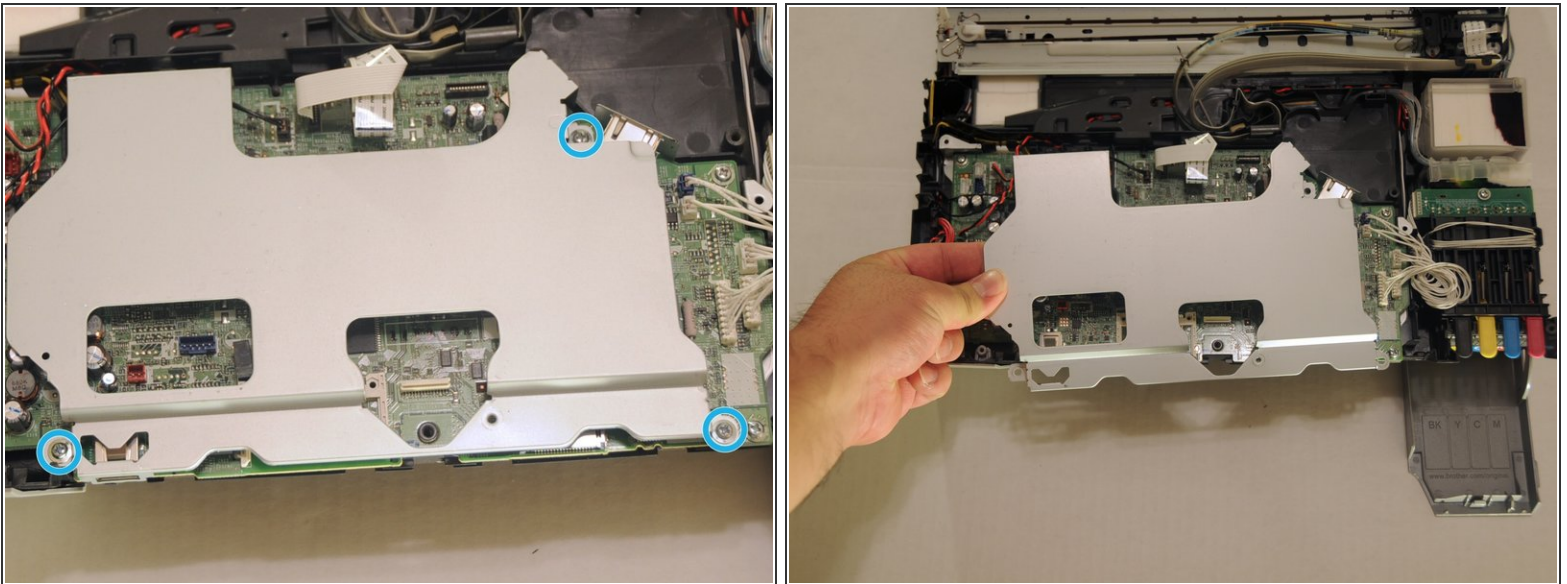
Step 16 — Remove the device cover

- Using a spudger, loosen the two clipped portions of the cover located at the back-center of the device.

- Once the clips are free the rest of the cover can be lifted up and away from the device.

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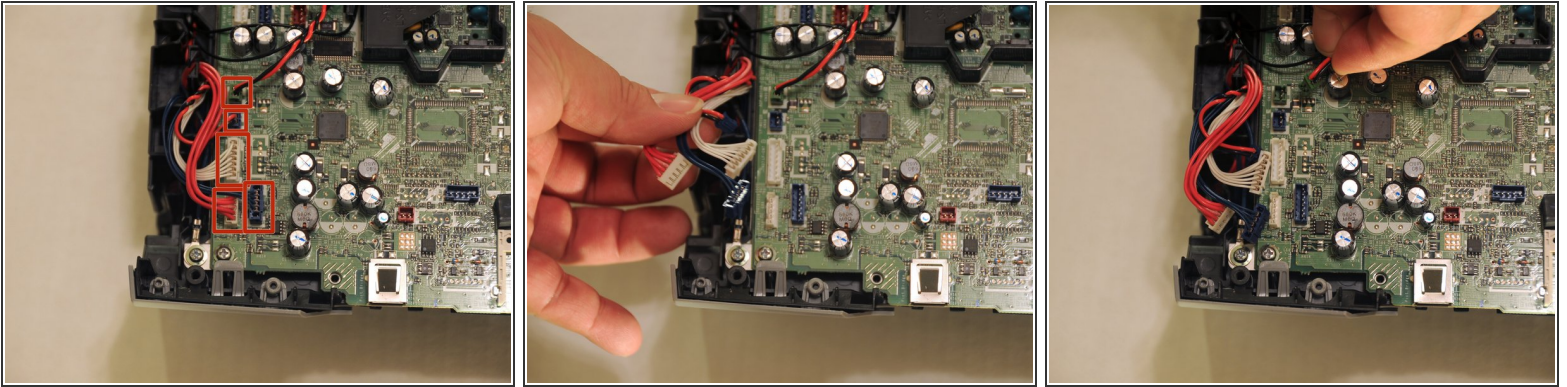## Step 17 — Remove the front port cover

- Push the left and right clipped portion of the cover away from the device.

- Pull the cover away from the device.

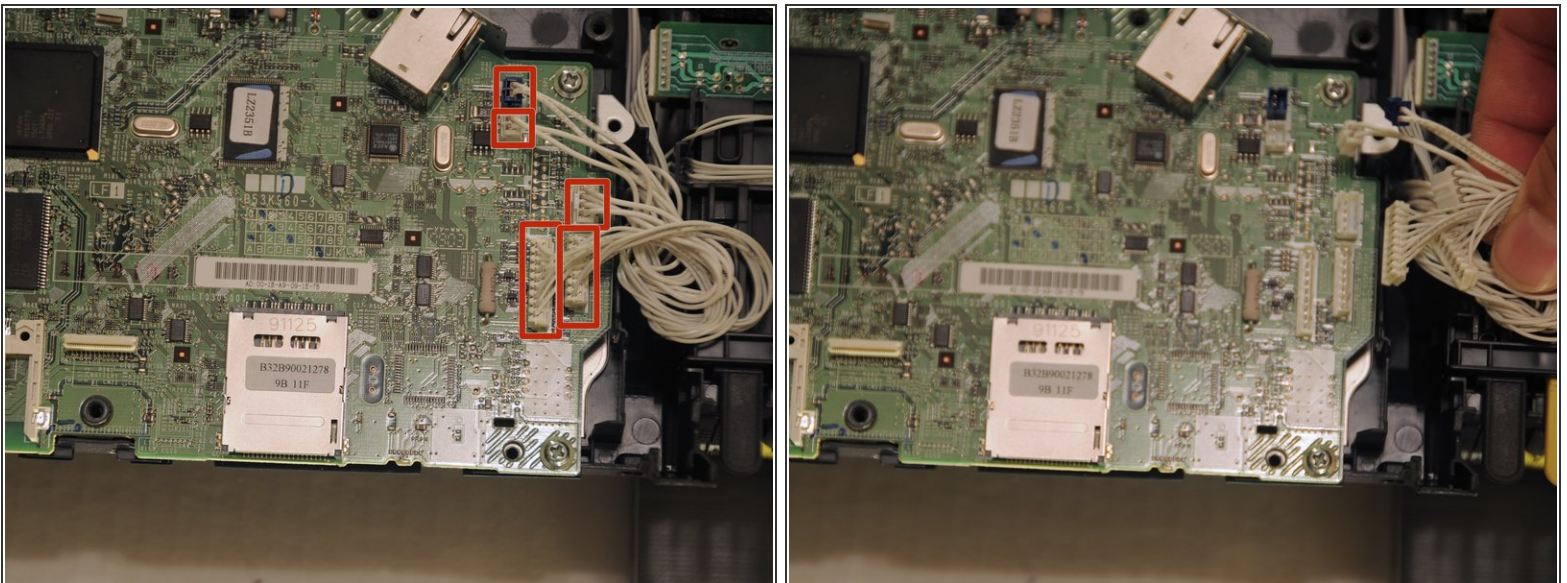## Step 18 — Remove the motherboard cover

- Unscrew the three 8.3mm screws from the mother cover.

- Lift the cover away from the device. Be careful, the cover may get stuck from the Ethernet port. Simply slide the cover until it clears the port.

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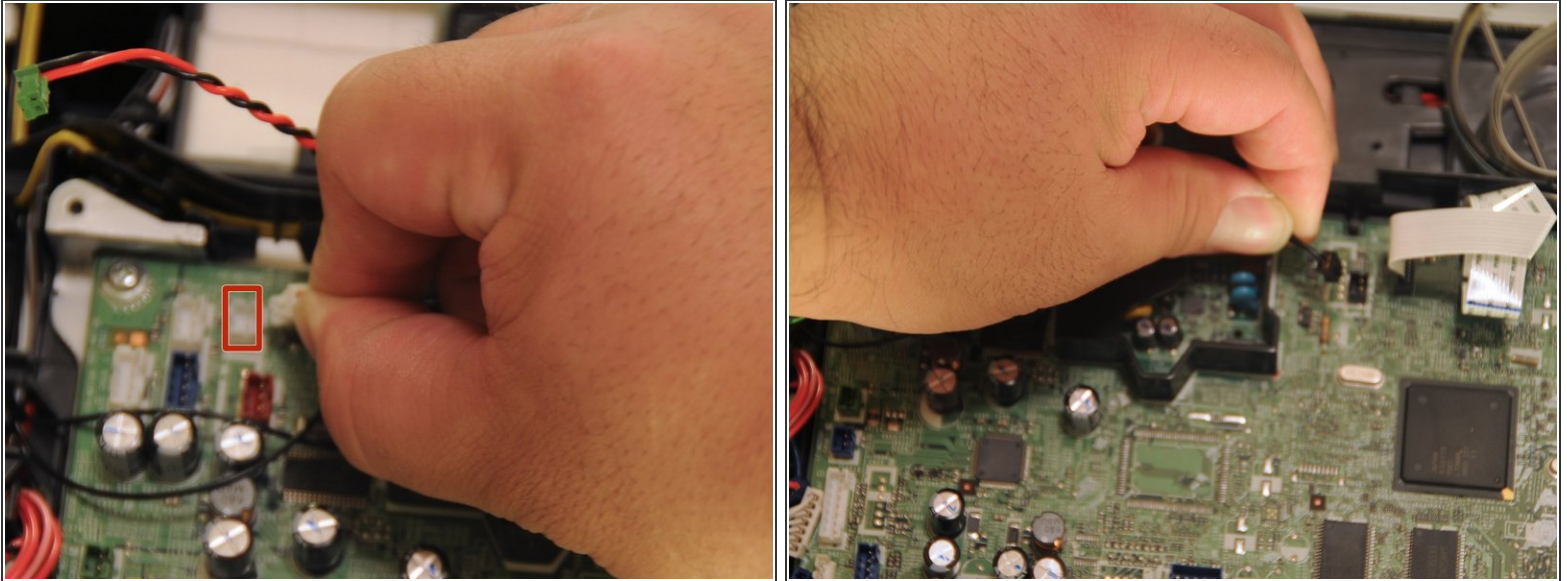
Step 19 — Remove power cable on left side

- Gently pull the five power cables away from the motherboard.

- (i) To avoid some confusion of the which cables go the which ports, label the cables with some post-its before removing the cables.

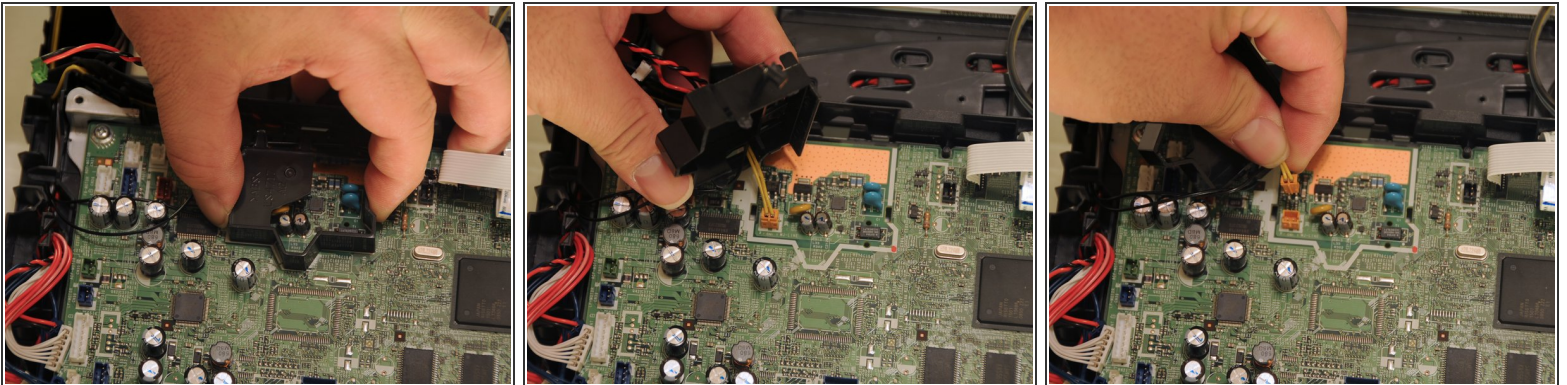## Step 20 — Remove power cables on right side of device

- (i) Label the different cables before removing them from the motherboard.

- Gently lift the five power cables away from the motherboard.

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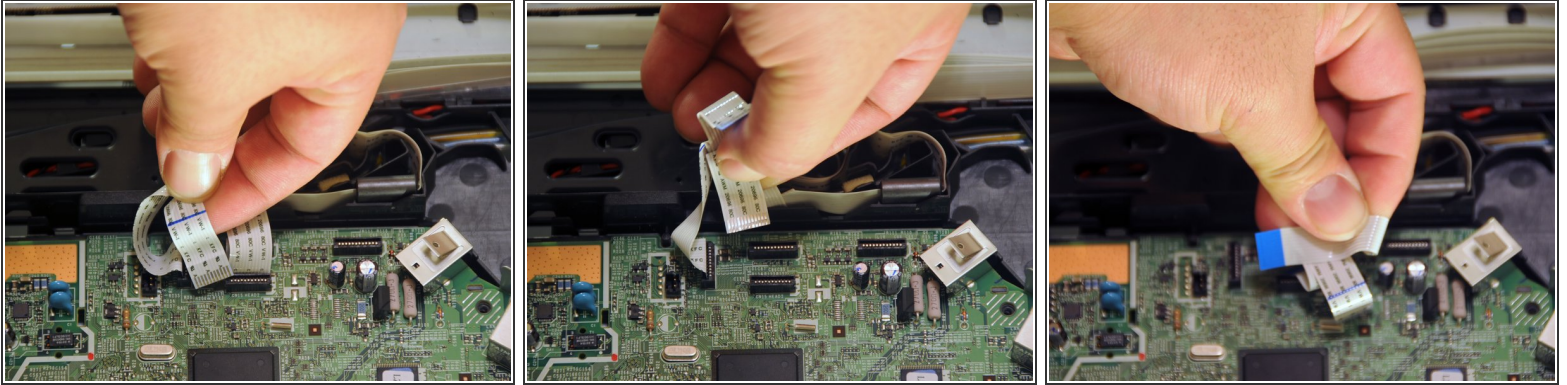## Step 21 — Remove black and white rear power cables.

(i) Label the white cable before removing the cable. It will also be helpful the add a label to the port where the white power cable is inserted.

Step 22 — Remove orange power cable

- Squeeze the clips of the cover protecting the orange cable.

- Lift the cover away from the motherboard and set is aside.

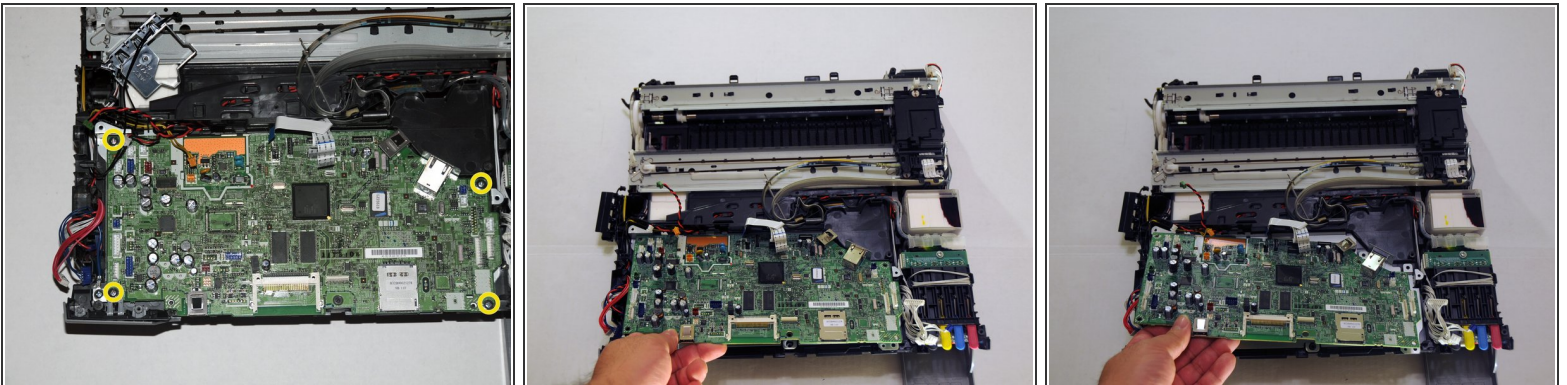- Gently lift the orange power cable away from the motherboard.

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Step 23 — Remove data cables

- ⓘ To avoid any confusion, create a diagram of the location of the data cables and label the cables.

- ● Gently, lift the cables away from the motherboard.

Step 24 — Remove the motherboard

- ● Unscrew the four 12.1mm screws.

- ● Lift the motherboard away from the rest of the device.

To reassemble your device, follow these instructions in reverse order.