



Brother MFC-490CW Motherboard Replacement

The Brother MFC-490CW is an all-in-one inkjet...

Written By: Henry Cho



INTRODUCTION

The Brother MFC-490CW is an all-in-one inkjet printer that includes features like printing, scanning, copying, and faxing. In terms of its internal components, the motherboard (also referred to as the mainboard) is a crucial part of the printer. The motherboard serves as the central circuit board that houses the primary processing unit and connects various components, such as the CPU, memory, input/output ports, and other essential elements. Issues with the motherboard in a Brother MFC-490CW, such as power failures, display dysfunction, communication errors, and persistent print quality problems, may suggest various malfunctions.

TOOLS:

Phillips #2 Screwdriver (1)

iFixit Opening Tool (1)

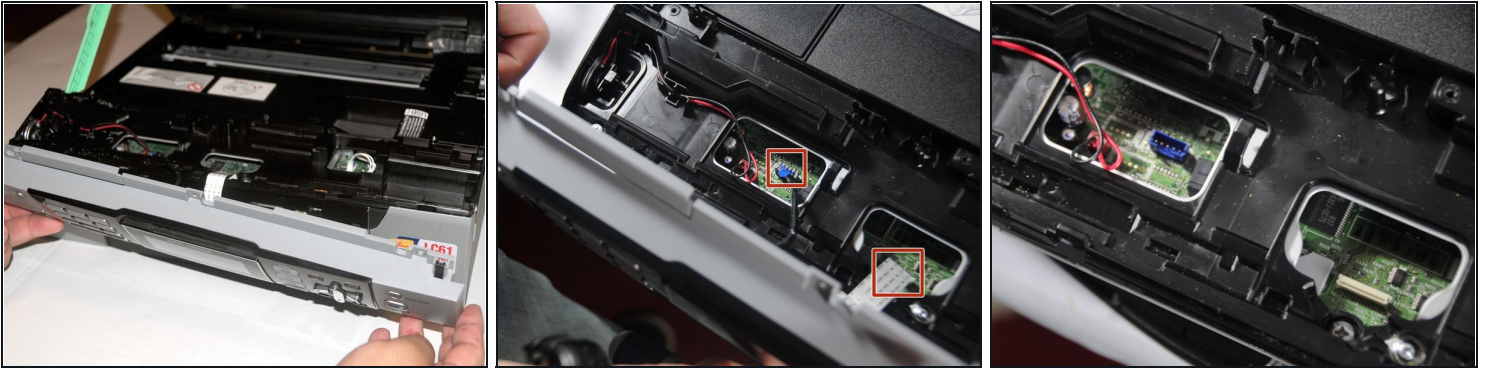
Spudger (1)

Step 1 — Remove screws holding the front panel



- Use a Phillips #2 screwdriver to remove the three 12.1 mm 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 disconnect the data cables that attach the panel to the printer.

Step 3 — Motherboard



- Lift the scanner unit lid.
 - 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 from the device.
- ⓘ Before removing the unit, apply 2-3 pieces of tape to secure the top and bottom of the unit.

Step 4



- Slide the unit either to the left or right and push it away from the device.
- Once one hinge is separated from the device, begin to remove the other hinge.
- Gently place the unit on the work surface.

⚠ Be careful not to pull too hard. The wires connecting the unit to the device must be removed.

Step 5



- From the back of the device, use the exposed portion of the panel and gently begin to remove the panel away from the device.
- i** While it is not necessary to use a prying tool, a thin prying tool can help lift the panels.

Step 6



- Use the exposed portion of the panel to begin to lift the panel away from the back of the device.

Step 7



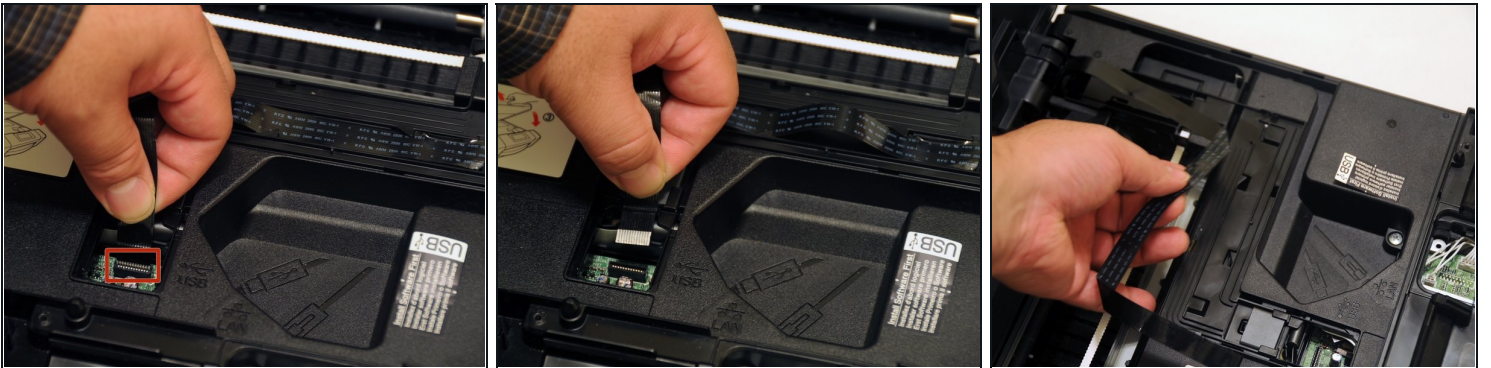
- Remove the three power cables that connect the scanner to the motherboard on the left side.
- ① Before removing the cables, create a diagram of their locations. Label the cables with some tape or post-its.

Step 8



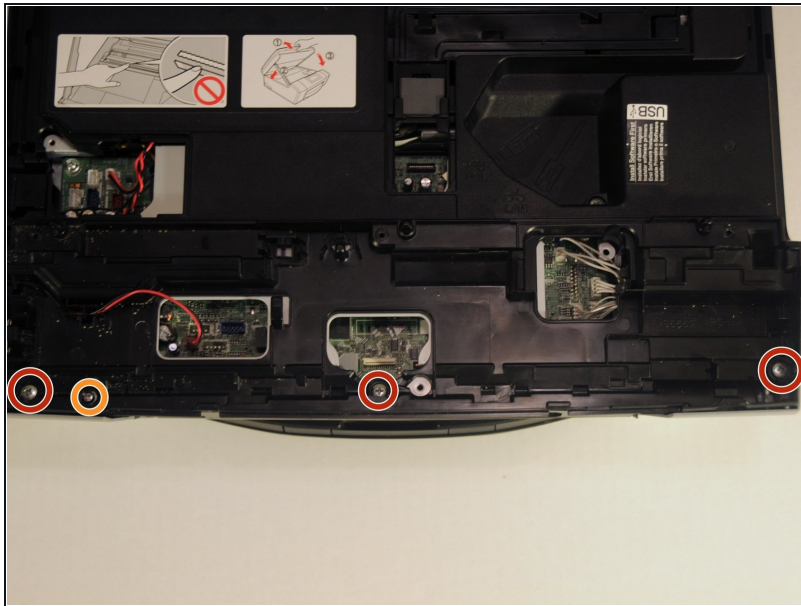
- Unscrew the 12.1mm screw to remove the ground wire.

Step 9



- Gently pull the data cable out of the motherboard.
- Slide the cable out of the slots to remove it from the device.
- Once separated, place the unit and ground screw in a safe area of the workspace until they are needed for re-assembly.

Step 10



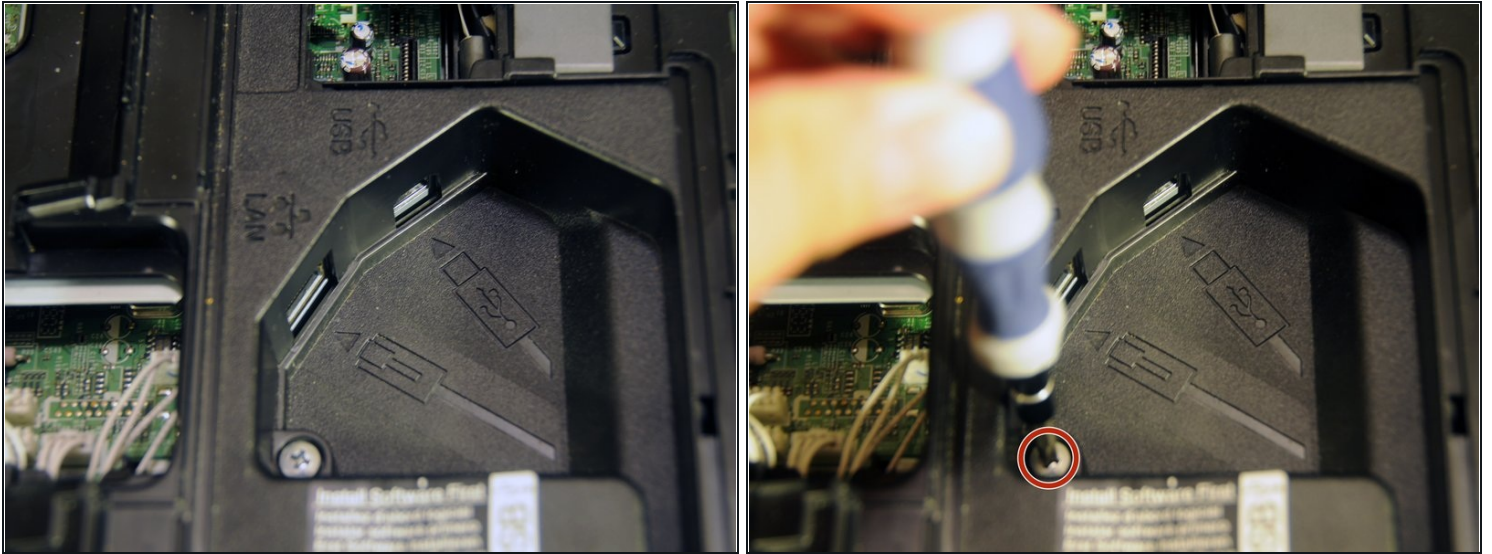
- Unscrew the three 14.1mm screws.
- Unscrew the 12.1mm screw.

Step 11



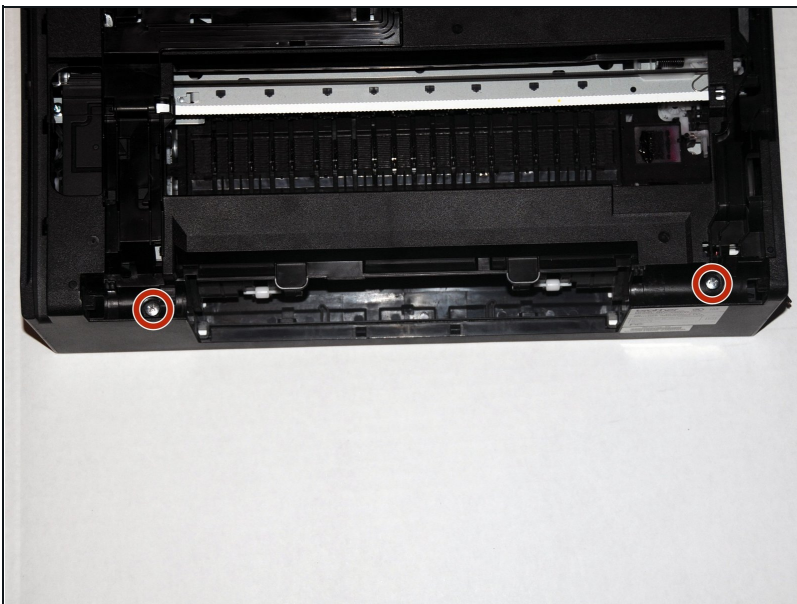
- Pull the paper tray away from the device.

Step 12



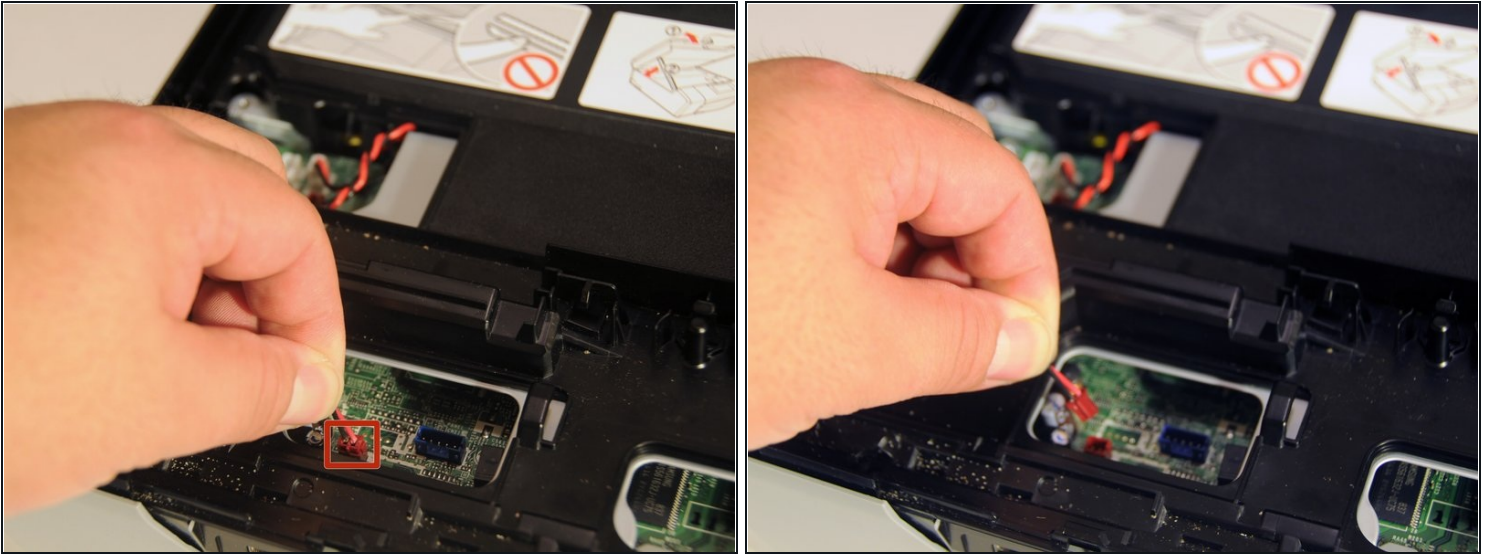
- Locate and remove the screw near the USB and ethernet ports.
- Unscrew the 8mm screw at the center of the device.

Step 13



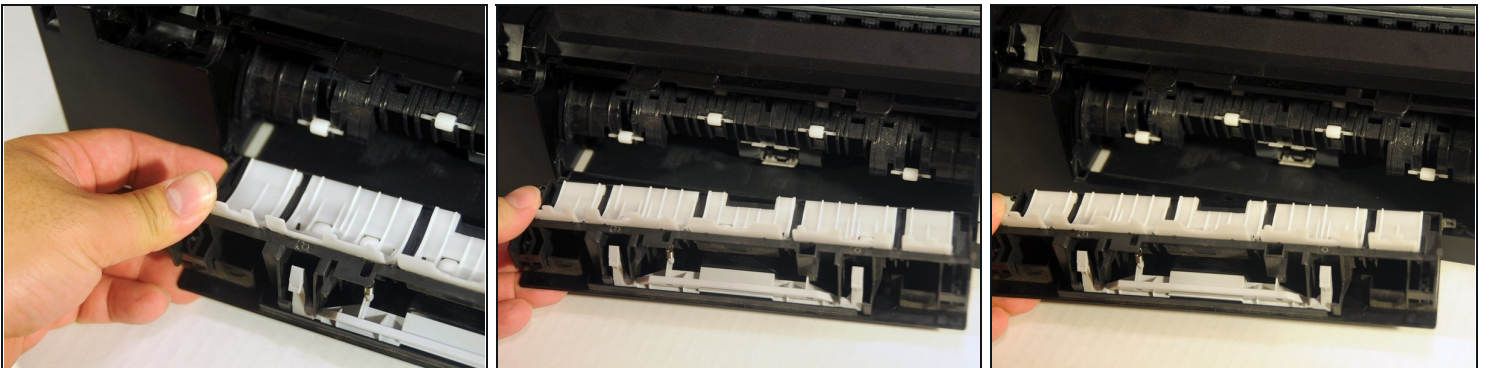
- Unscrew the two 14.1mm screws holding the rear panel in place.

Step 14



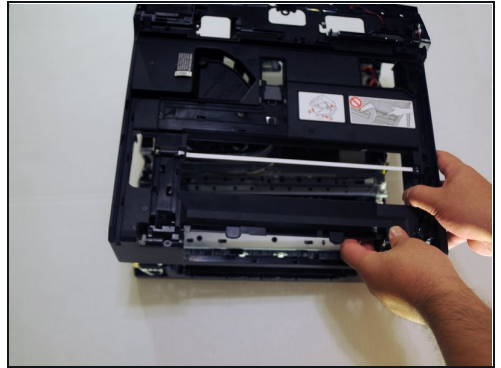
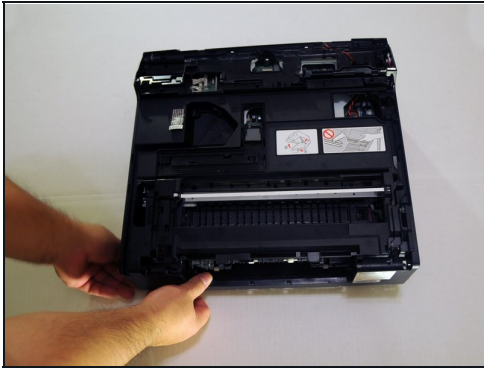
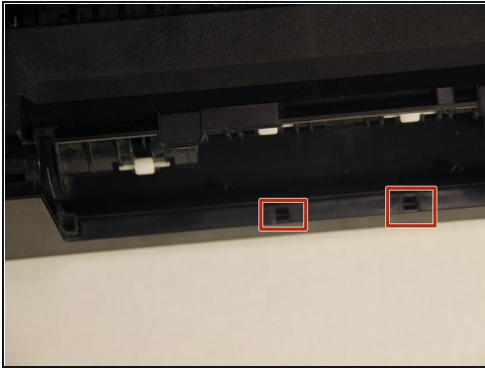
- Gently remove the red power cable from the motherboard.
- ① This cable needs to be taken out to allow the removal of the device cover.

Step 15



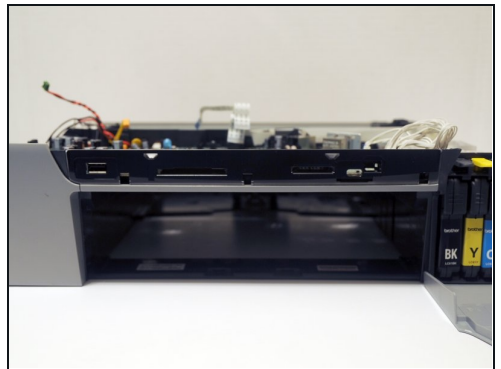
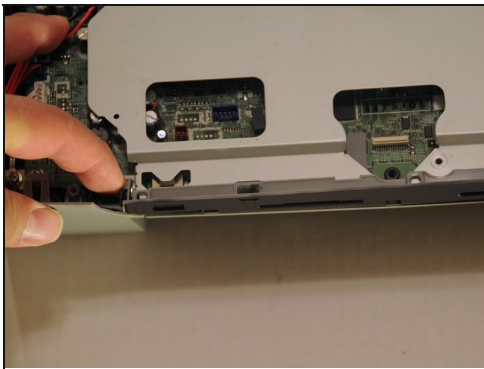
- Gently push the upper-left tab of the paper jam clear cover and separate the hinged portion of the cover from the rest of the device.
- Once one side is free, slide the other side away from the device.
- Pull the cover away from the device.

Step 16



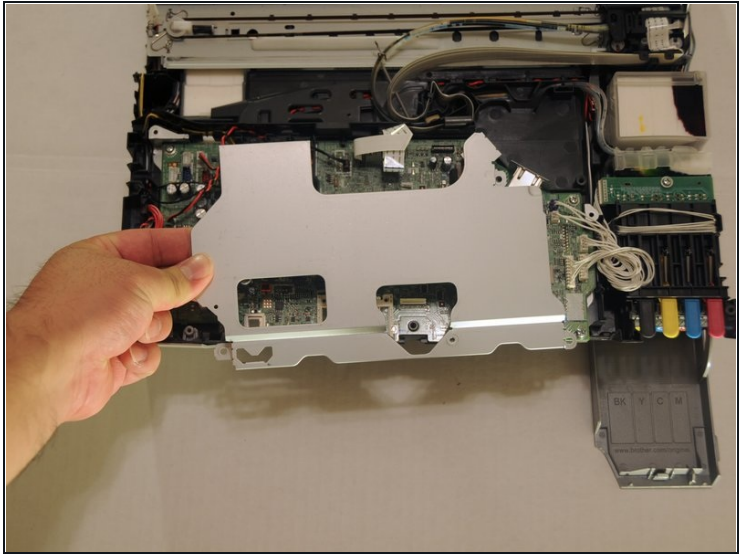
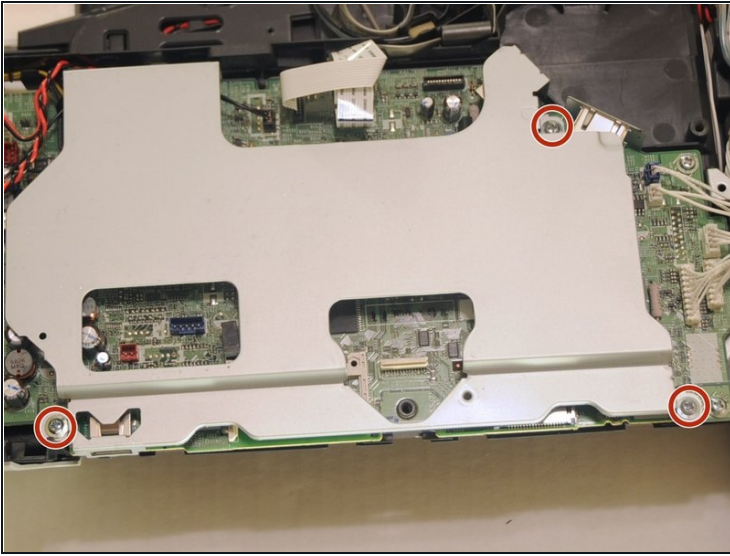
- Using a spudger, loosen the two clipped portions of the cover located at the back-center of the device.
- Once the clips are free the rest of the cover can be lifted up and away from the device.

Step 17



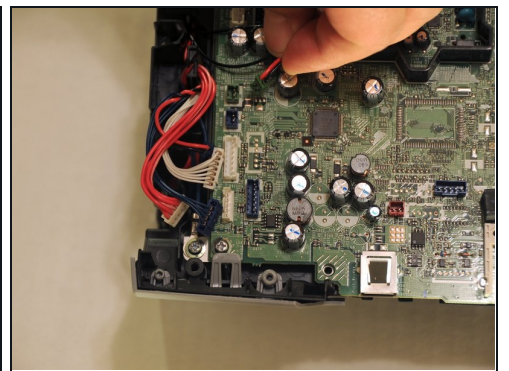
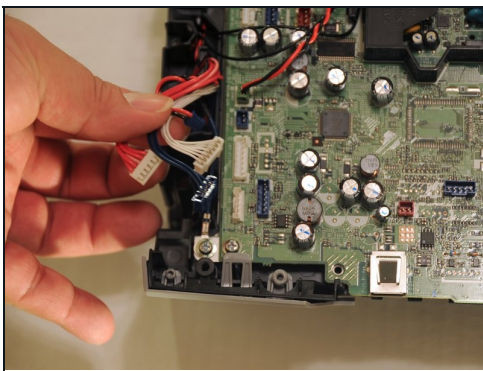
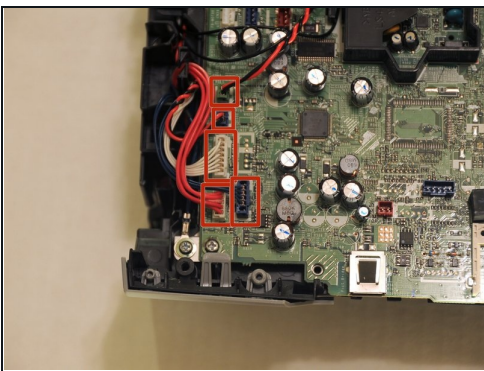
- Push the left and right clipped portion of the front port cover away from the device.
- Pull the cover away from the device.

Step 18



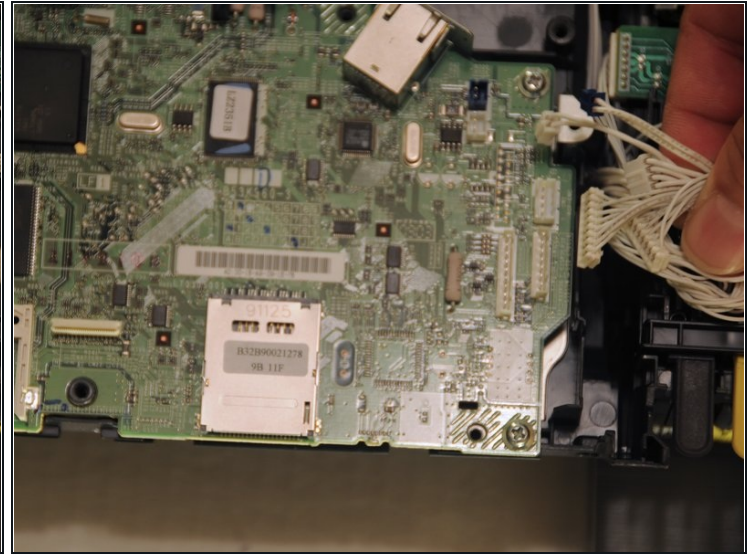
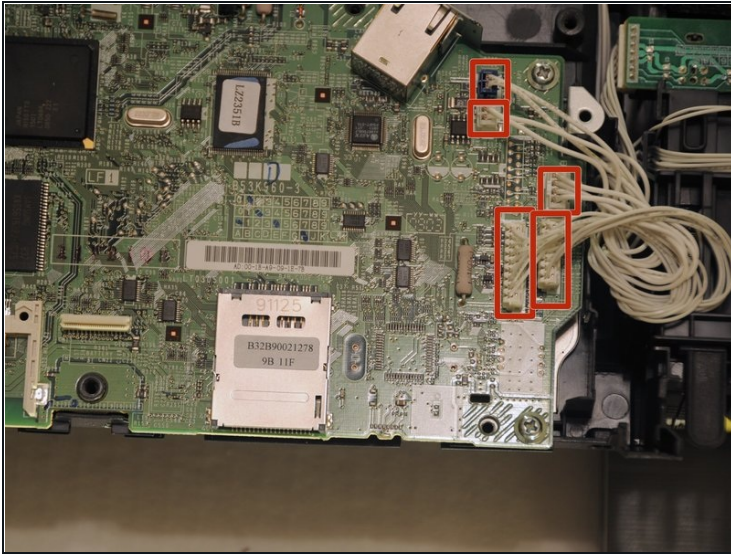
- Unscrew the three 8.3mm screws from the motherboard cover.
- Lift the motherboard cover away from the device.
- ⓘ Be careful, the motherboard cover may get stuck to the ethernet port. Simply slide the cover until it clears the port.

Step 19



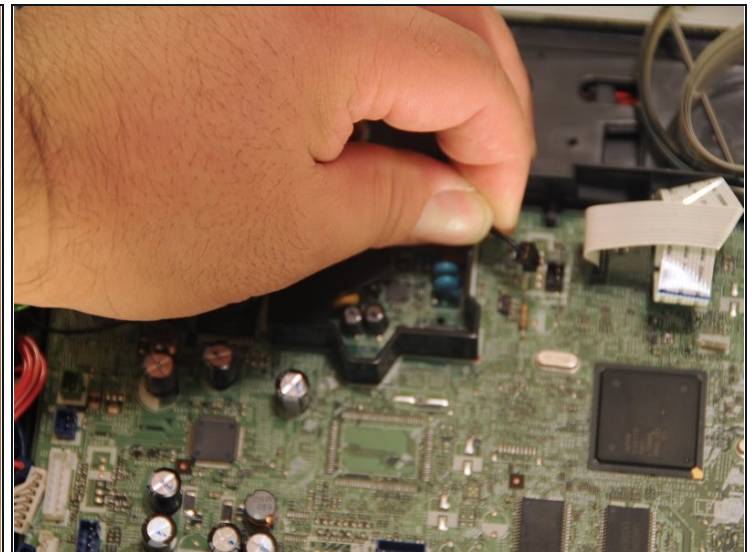
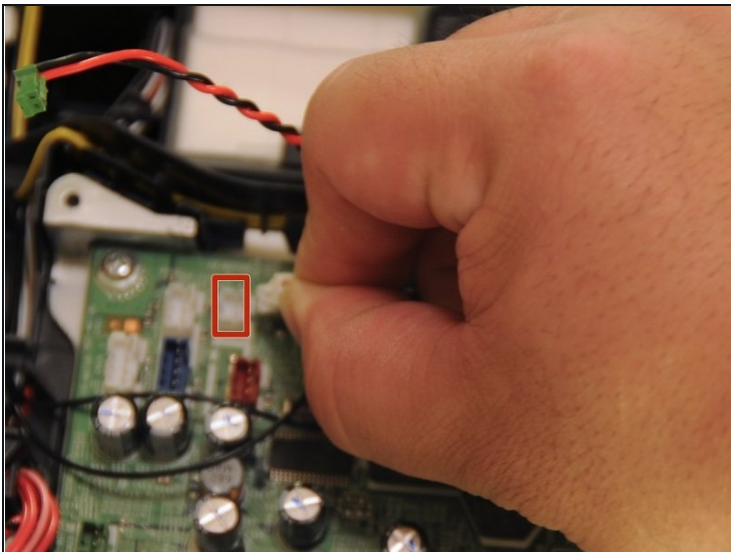
- Gently pull the five power cables on the left side, away from the motherboard.
- ⓘ Label the cables with post-its or tape before removal.

Step 20



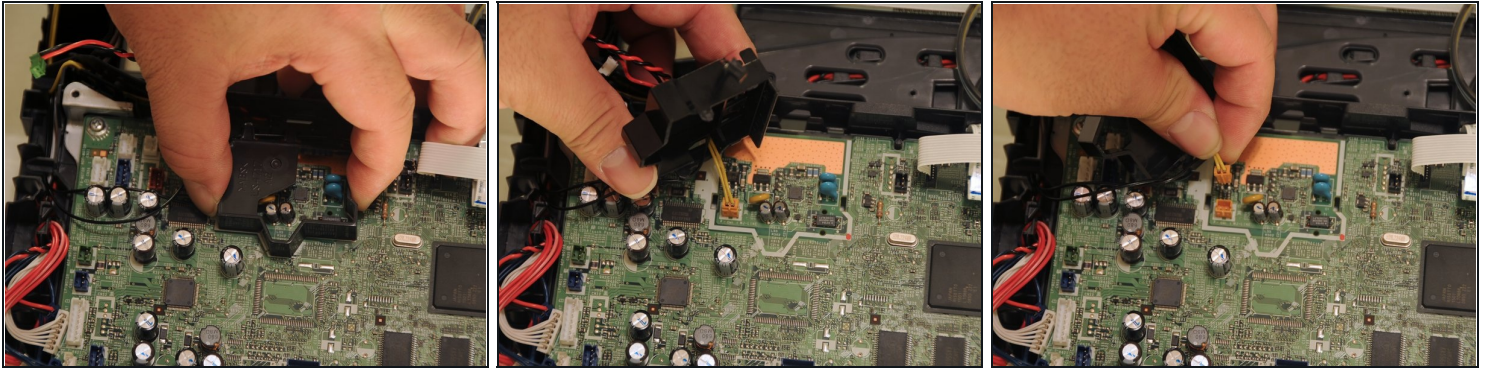
- Gently lift the five power cables on the right side away from the motherboard.
- ① Label the cables with post-its or tape before removing them from the motherboard.

Step 21



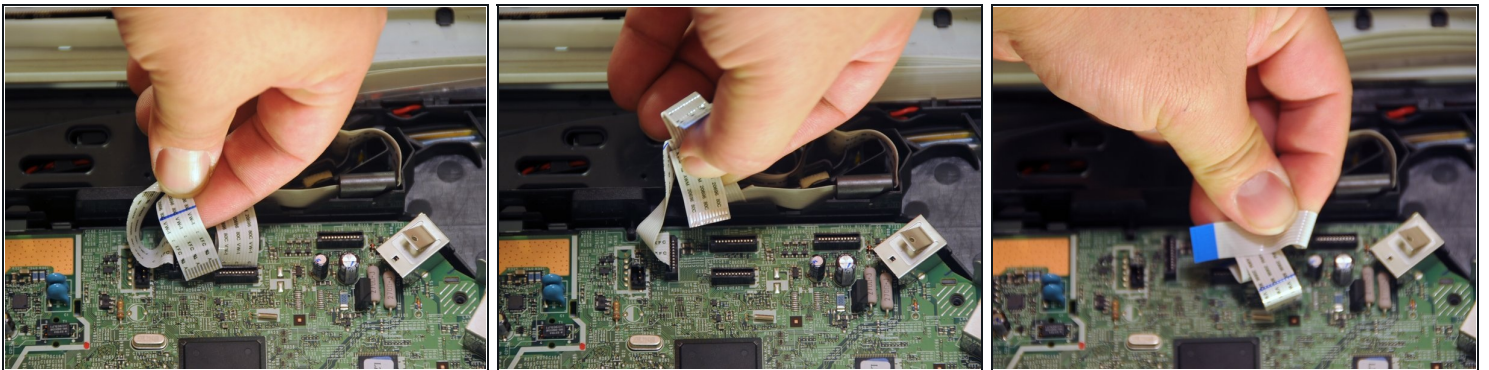
- Label the white cable before removal.
- Add a label to the port where the white power cable is inserted.
- Remove the rear black and white power cables.

Step 22



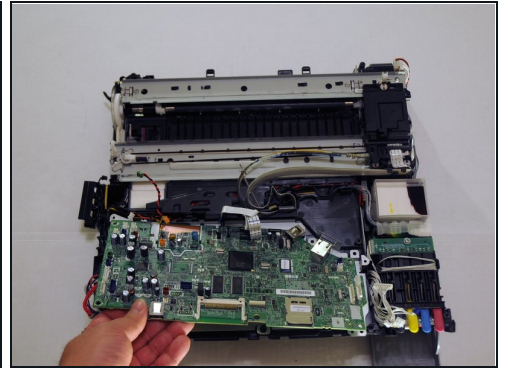
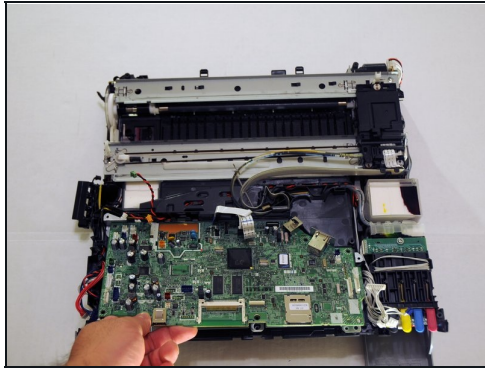
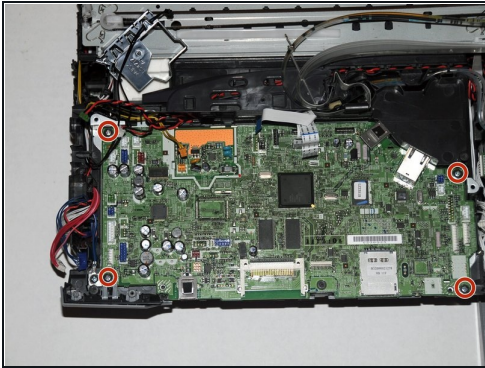
- Squeeze the clips of the cover protecting the orange power cable.
- Lift the cover away from the motherboard and set it aside.
- Gently lift the orange power cable away from the motherboard.

Step 23



- Gently, lift the data cables away from the motherboard.
- ① To avoid any confusion, create a diagram of the location of the data cables and label the them.

Step 24



- Using a screwdriver, remove the four 12.1 mm screws.
- Lift the motherboard away from the rest of the device.

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