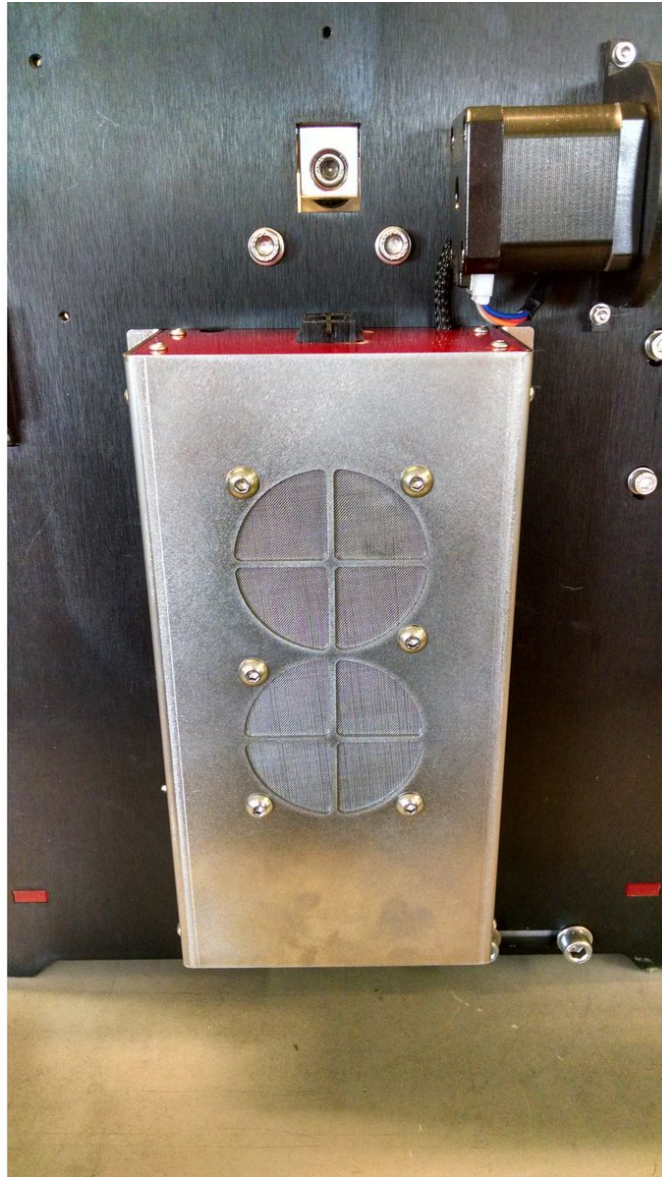


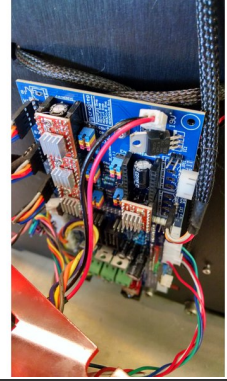
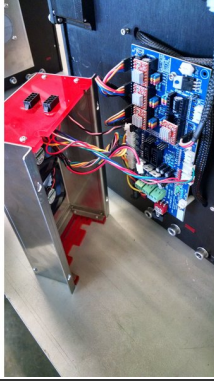
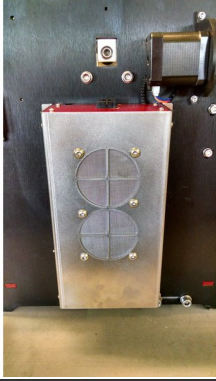


Removing and Reinstalling a Circuit Board

Written By: Mary Poppins

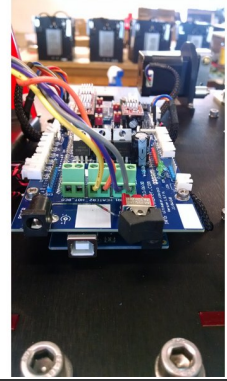
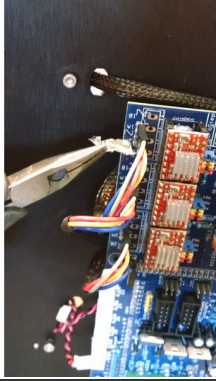
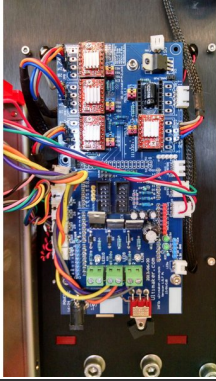


Step 1 — Removing Cover and Disconnecting Fan



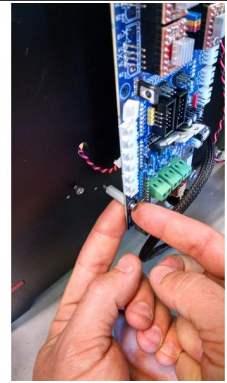
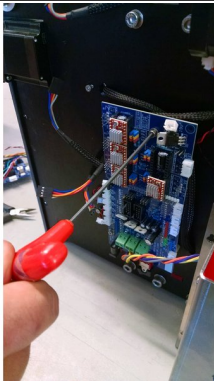
- The circuit board is located beneath the fan cover on the back of your BoXZY. Make sure all the power is off before beginning this process.
- To begin, unscrew the bolts on the back cover and remove it by lifting the cover upwards and towards you.
- Be sure to remove the cover slowly to avoid tearing the wires.
- You will need to disconnect the fan's wire plug at the top of the board. It's the black and red cord at the very top. Disconnect it by firmly pulling on the white plug.
- Once you have disconnected that wire, you can set the cover to the side to give you room to work.

Step 2 — Remove Wires



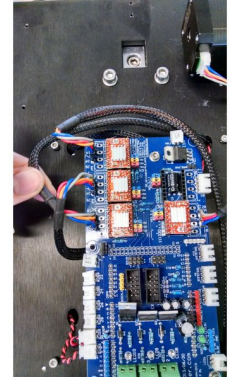
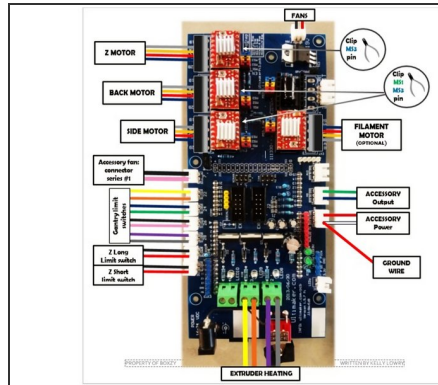
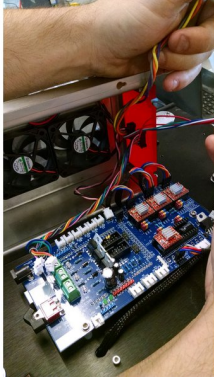
- After the fan cord has been unplugged, the board should look like the first picture. Use this image for reference for when you reconnect the wires.
- There will be hot glue on the limit switch prongs. Take pliers and peel off the glue.
- After peeling off the glue, unplug the limit switch harnesses.
- Continue to unplug all of the wires. With the exception of the four, larger wires at the bottom of the board, they all should unplug fairly easily.
- To remove the four wires at the bottom of the board, take a small, flat-head screw driver and loosen the screws clamping them down.

Step 3 — Removing the Board



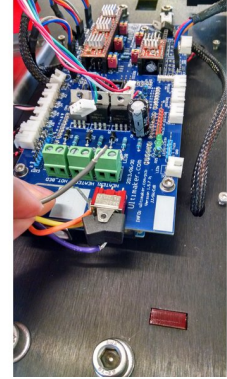
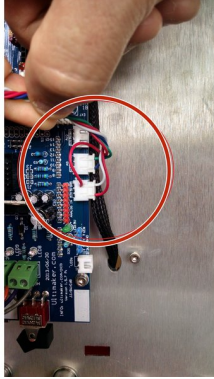
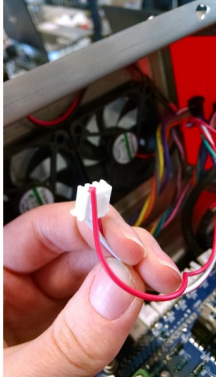
- Once you have unplugged all of the wires, loosen the three bolts holding the board to your BoXZY.
- Gently remove the board. If you have done it properly, it should look like the second photo in this step.
- After you have removed the old board, take your new one and place the bolts and protectors in the holes, as per the third picture.
- Do not tighten the bolts all the way individually. Tighten all three bolts at roughly the same pace to ensure even board placement.

Step 4 — Installing New Board



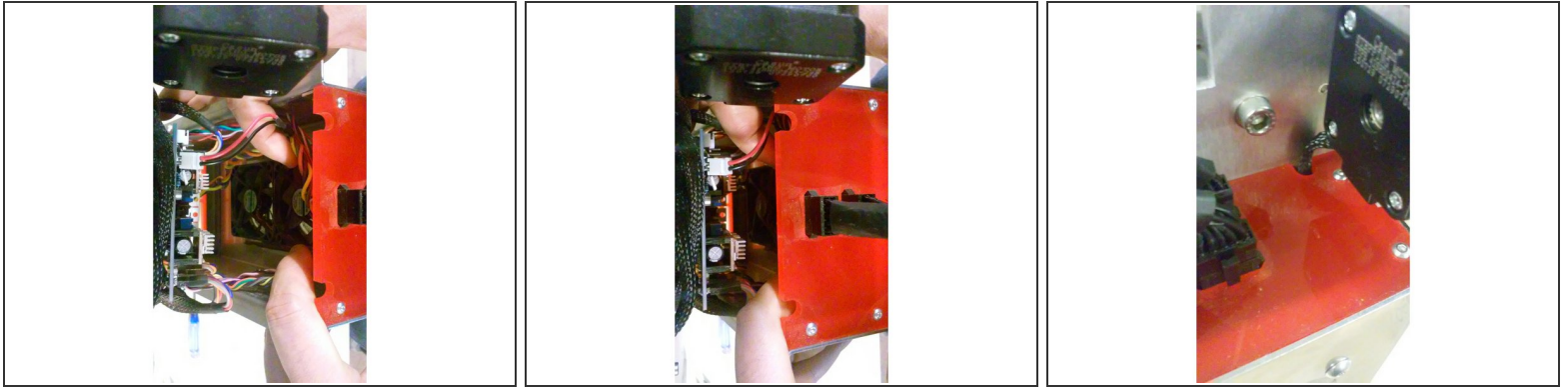
- Make sure the wires are not crossing and are positioned on the correct side of the board before plugging them back in to their corresponding plugs.
- Begin plugging the wires back in to the appropriate outlets. Refer to the electrical diagram for reference to make sure you are plugging the wires in to the correct spots.
- **NOTE:** This electrical diagram contains an error in the ground wire position. Please refer to this [service bulletin](#) for the correct wiring procedure. The filament drive wire colors are also reversed. Gray wire should be towards the top, not blue.
- Plug the Z Long and Z short wires in first . They're the red and black wires on the bottom left of the board.
- Next, plug in the motor harnesses. Wrap the top left harness behind the board and plug it into the Y prongs. Plug the top right harness into the X prongs and the bottom right harness into the Z prongs. The filament motor plug stays on the board's right side and corresponds to the filament prongs.
- Make sure that the shiny side of each motor plug is facing to the right when plugged in. The diagram refers to which panel the motor is bolted into (back vs side), not its physical location.

Step 5 — Installing New Board cont'd



- Place the ground wire into the hole corresponding with the white accessory power wire, as shown in the first picture. Make sure that none of the wires are frayed or sticking out before inserting them into the hole.
- If done properly, you should be able to easily slide the plug into its output casing.
- Before plugging in the four extruder heating wires at the bottom of the board, twist the wires together. Make sure that none of them are sticking out. Take a screwdriver and loosen the bolts in the extruder heating plugs. Stick the end of the wires into the opening and tighten the screws until you can't turn the bolt anymore.

Step 6 — Replace Cover



- Reinstall your back cover. Place the bottom to the machine first and plug the top fan plug back in that we removed earlier. Visually inspect your heatsinks and make sure they are installed and not hanging off or missing.
- Use your fingers to push the wires to the sides as you bring the top towards the machine. This will keep them from getting caught between the fans and the heatsinks and blocking airflow.
- Place the cover holes over the bolt heads and slide down. Careful about the filament drive harness, you must make sure it's in its own groove.
- Screw down cover.
- Turn on power to verify there are no wires hitting the fan blades making a scratching noise.