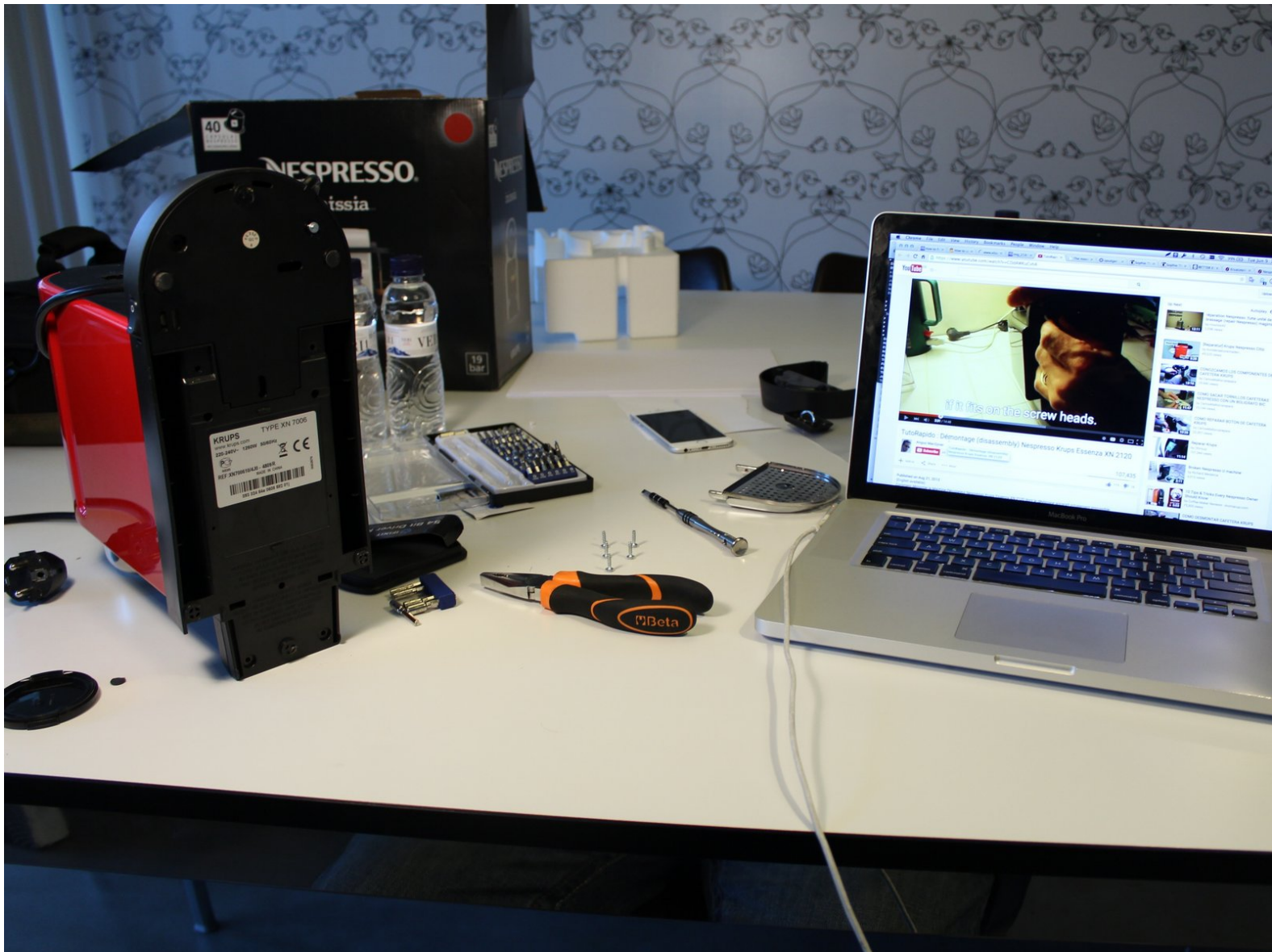




Nespresso CitiZ Teardown

How to take apart the CitiZ espresso machine.

Written By: Kyle Wiens

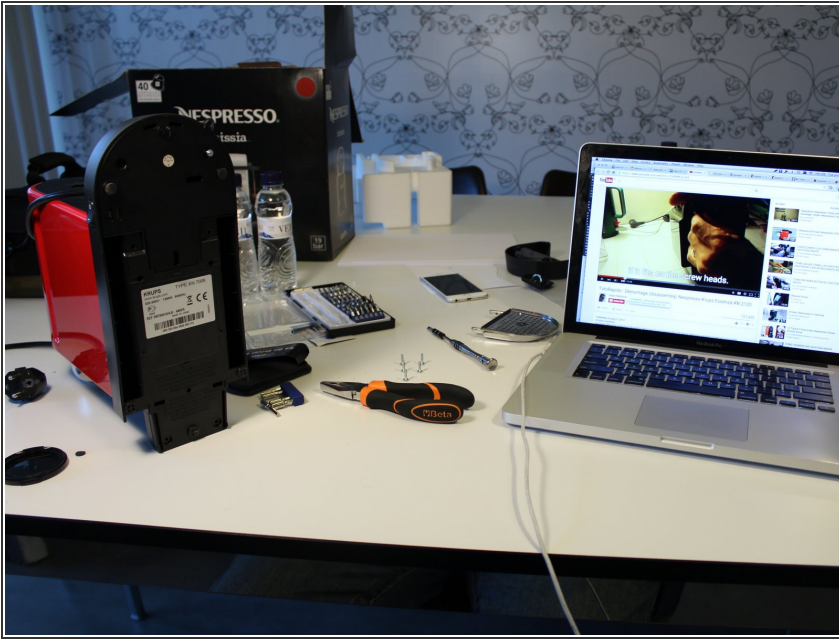




TOOLS:

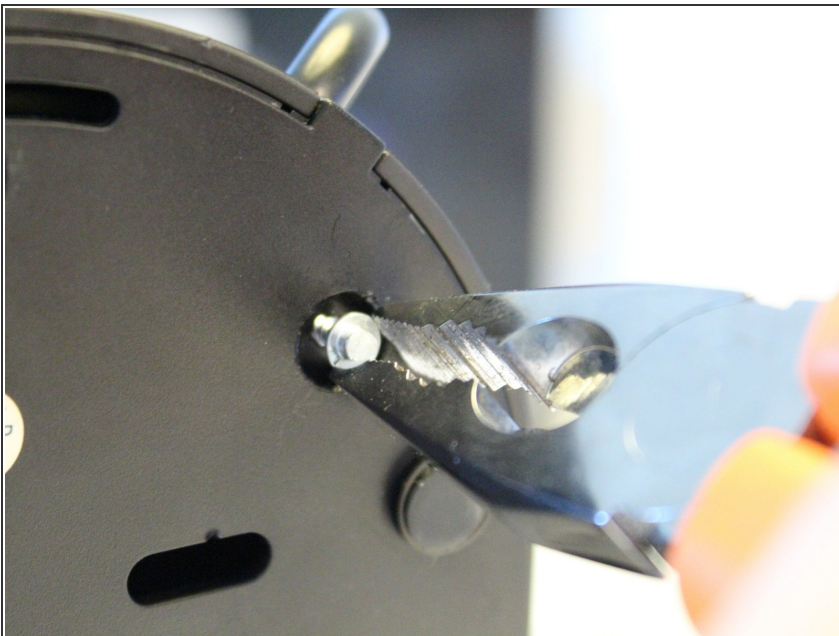
- [Large Needle Nose Pliers](#) (1)
 - [Spudger](#) (1)
-

Step 1 — Nespresso CitiZ Teardown



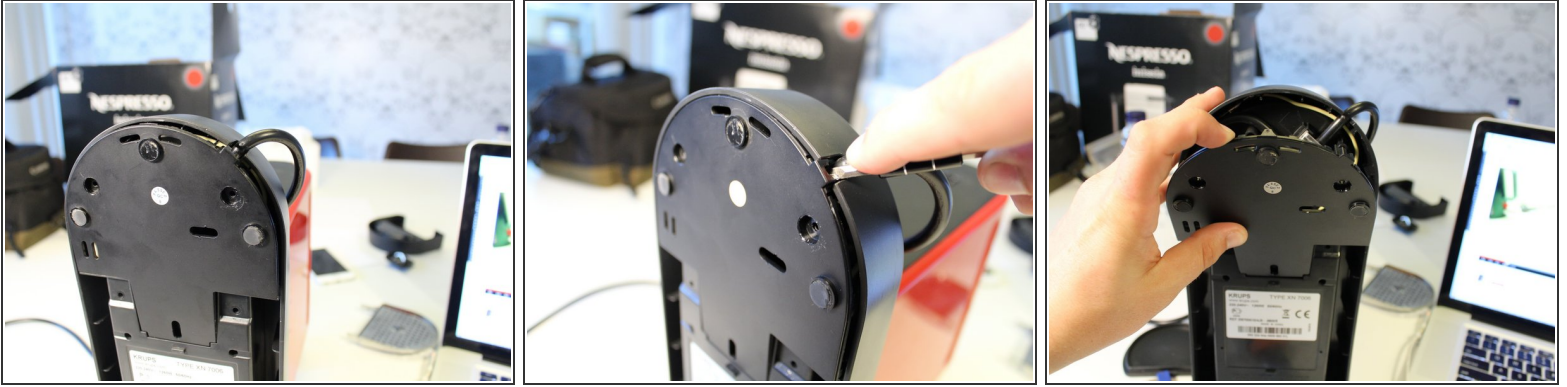
- The CitiZ is a compact coffee-making gizmo. Opening it requires a proprietary tool that Nespresso doesn't sell.
- You can get into it with a pair of needle-nose pliers. The pliers I used aren't ideal — you want something that can get into the recessed slots.

Step 2



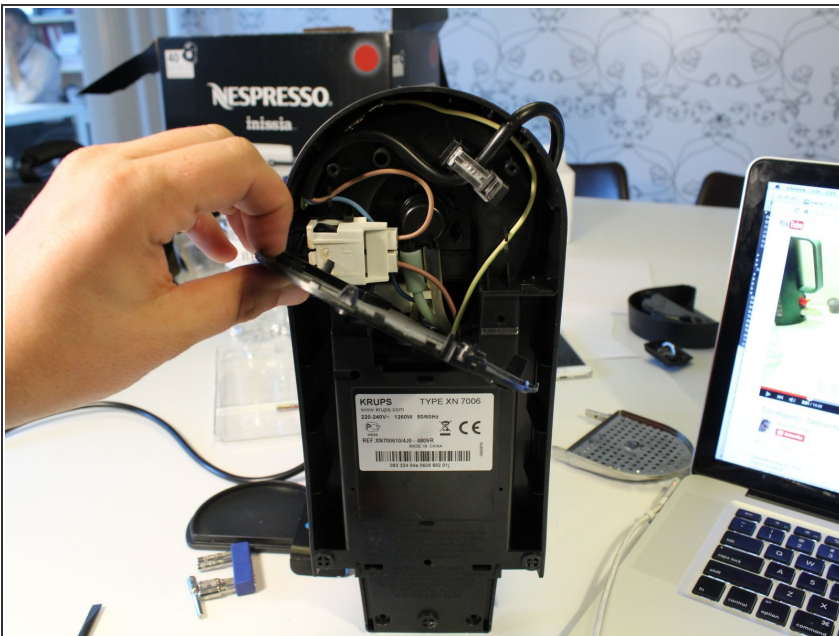
- There are six ovoid screws on the bottom case. The screws look like rivets, but they are actually oval.
- You can painstakingly remove them with pliers. Take your time.
- If you can't get pliers to work, other people have had success [using superglue](#), [melting a BIC pen into the shape of the screw](#), or [machining a custom bit](#).

Step 3



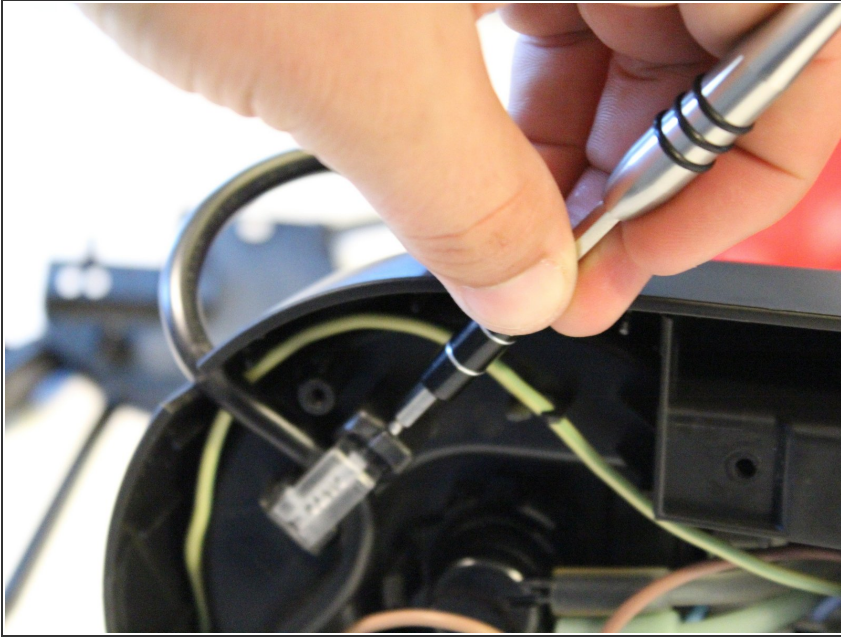
- Now that the screws are removed, use a screwdriver or a spudger to pry the tabs holding the bottom case on.
- The easiest place to get in is the power plug. Be careful not to nick it. (And make sure you're unplugged from the wall!)

Step 4



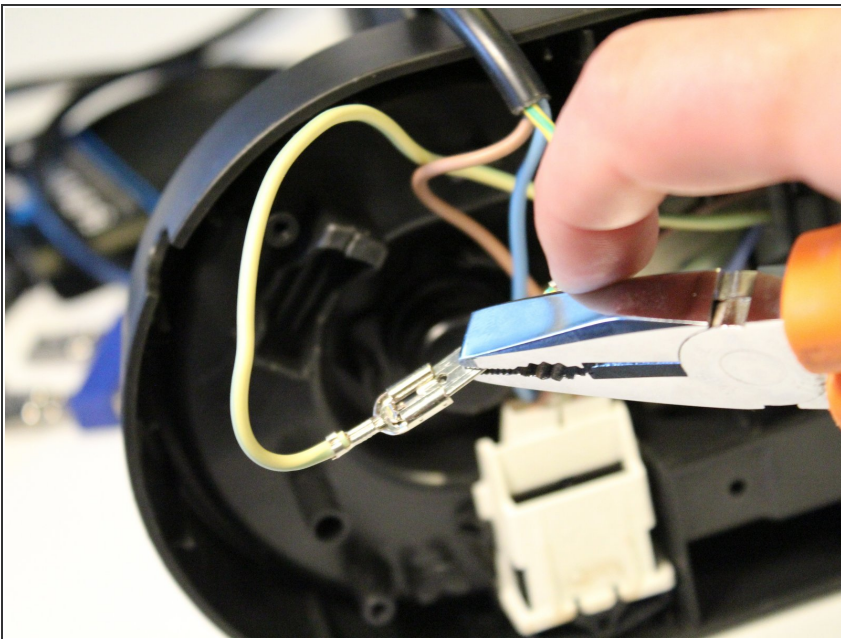
- Carefully open the lower case and set the machine on its side.

Step 5



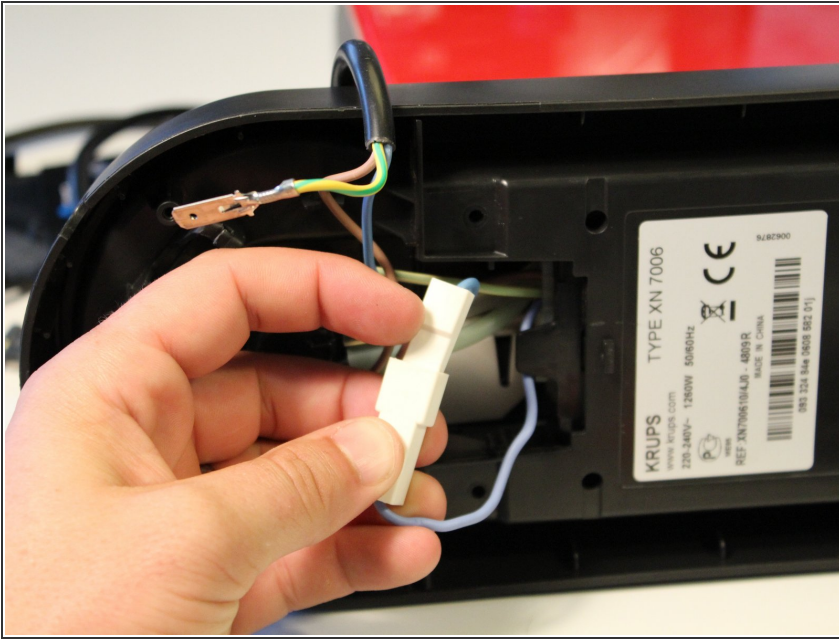
- The plastic strain relief bracket on the power cable is challenging to remove. Insert a small flathead screwdriver into the small slot on one side to disengage the tab.

Step 6



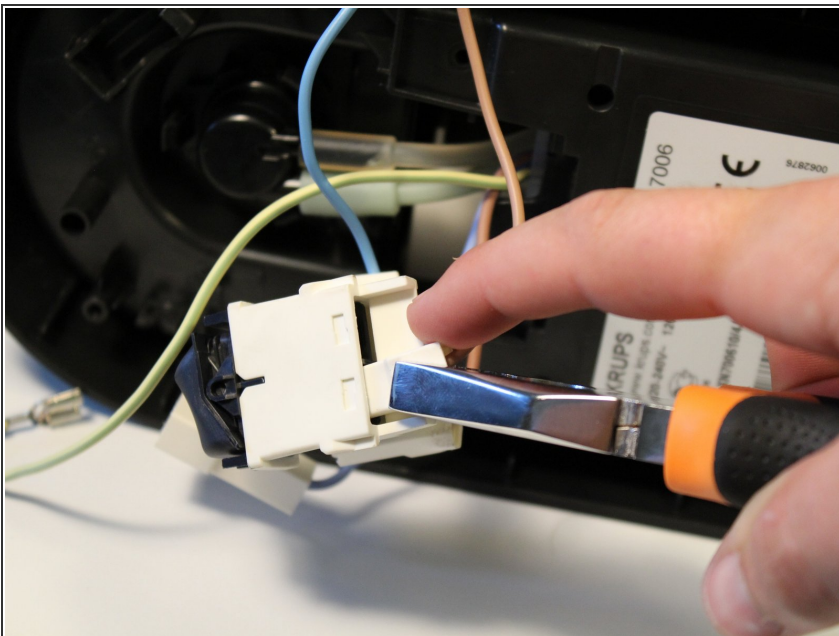
- Nespresso makes heavy use of spade connectors inside this machine.
- Grab one side firmly with your pliers and pull on the other side of the connector with your fingers. Do not pull on the cable, because you can pull it free from the spade connector.

Step 7



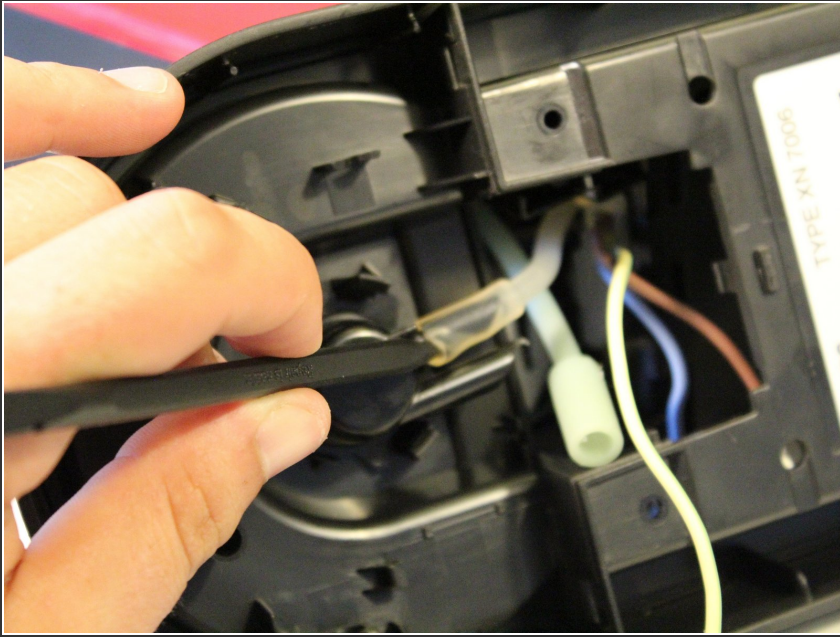
- Disconnect the blue neutral wire.
- Remove the power switch from the case.

Step 8



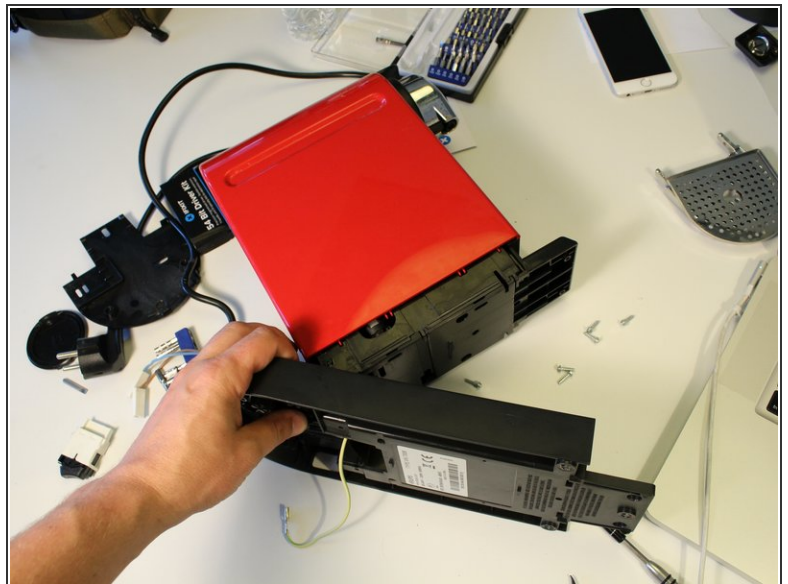
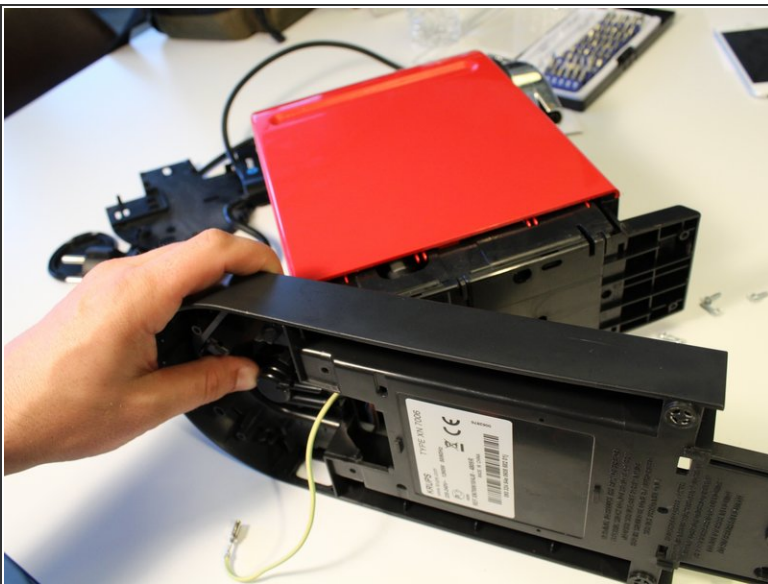
- Firmly grasp the power cable connectors and remove them from the power switch.

Step 9



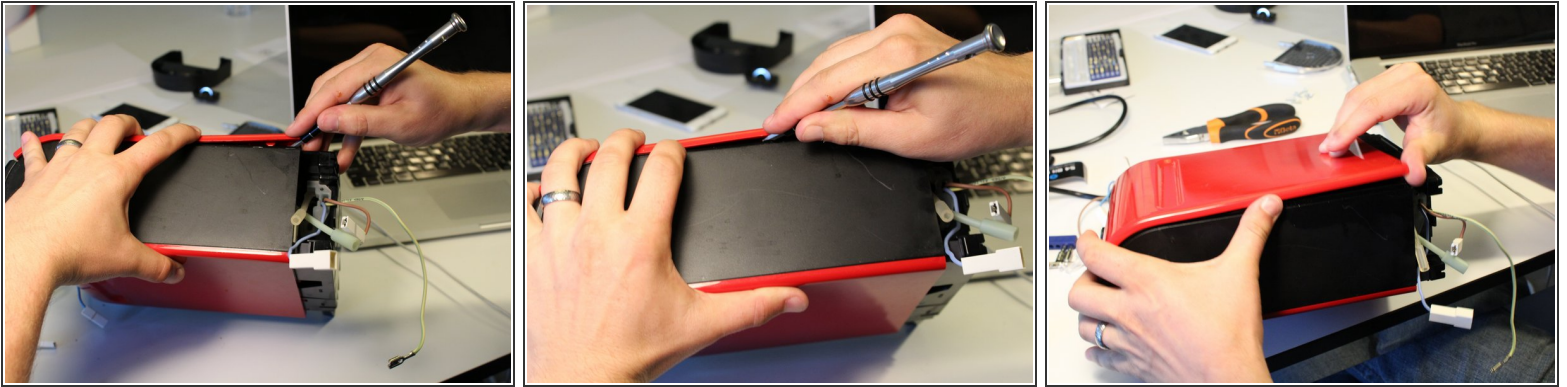
- Insert the tip of a spudger into the silicon tube and slide it off the nipple.

Step 10



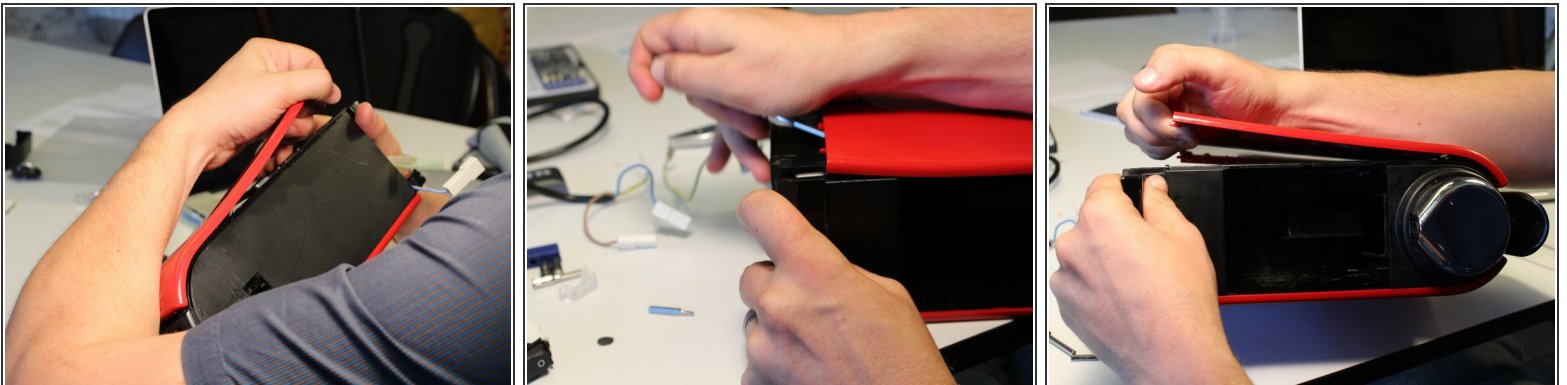
- Thread the remaining tubes and wires through the bottom case to free it from the main unit.
- Remove the bottom case.

Step 11



- Removing the outer shell requires some force.
- There are a series of tabs on all four sides of the shell.
- Start by using a flathead screwdriver or spudger to pop the first tab.
- Work your way around the case, freeing tabs as you go.

Step 12



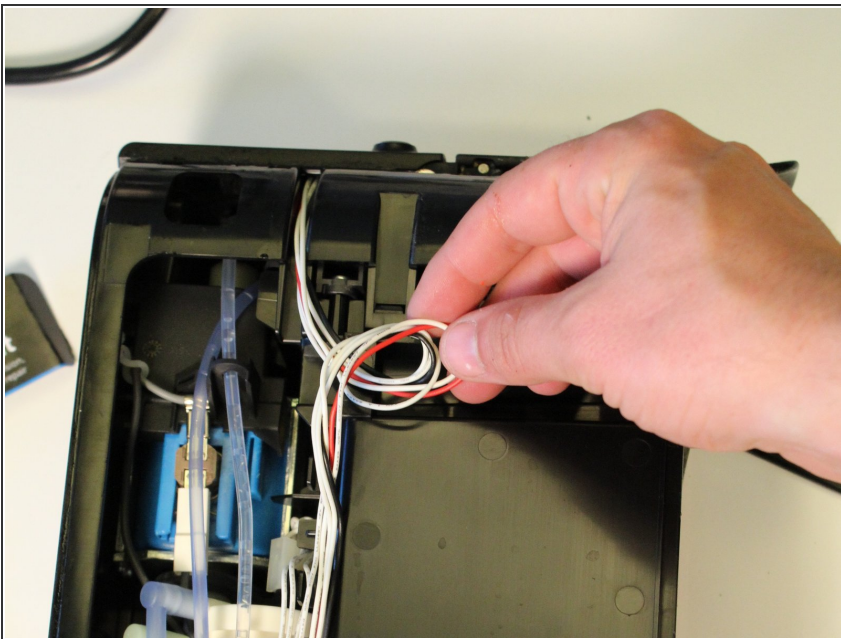
- Keep prying!

Step 13



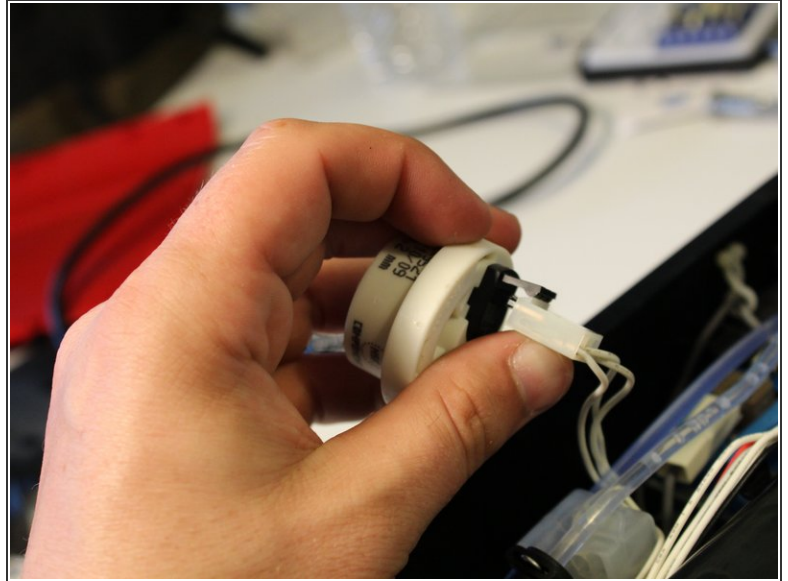
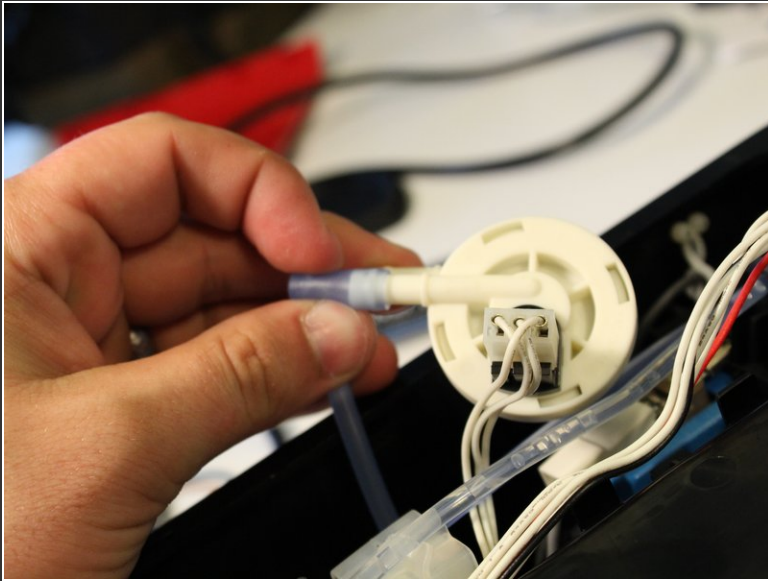
- Remove the outer shell.

Step 14



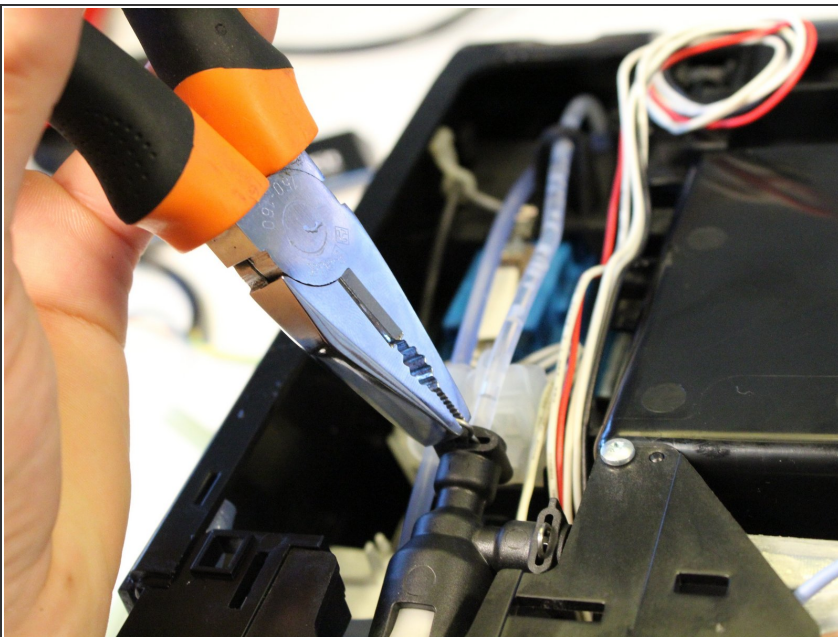
- Extricate the control button wires from the case assembly.

Step 15



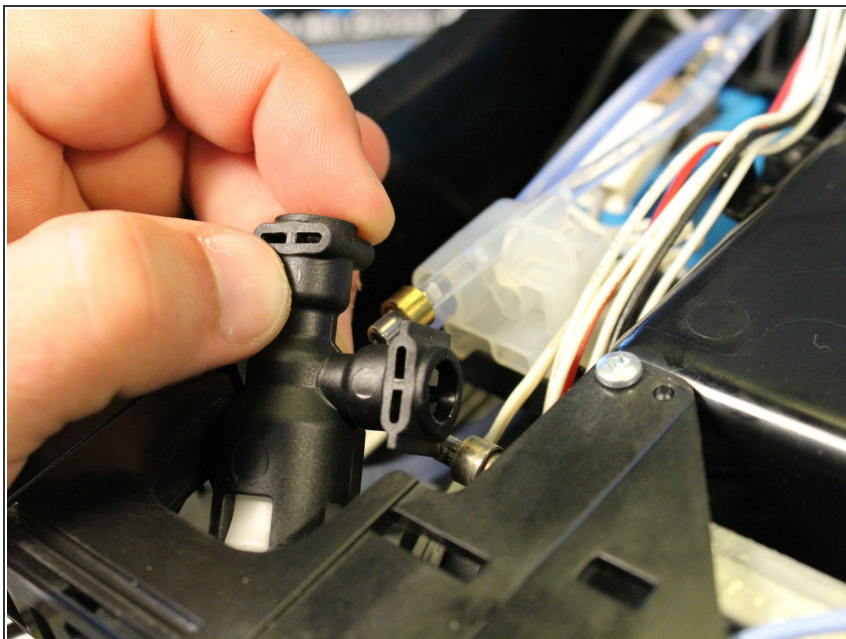
- Remove the blue tube from the flow meter.
- ⓘ This part, which measures water flow, is referred to as a 'debimetre' in Nespresso's part lists. It is part # 932-9521.
- Remove the sensor data cable.

Step 16



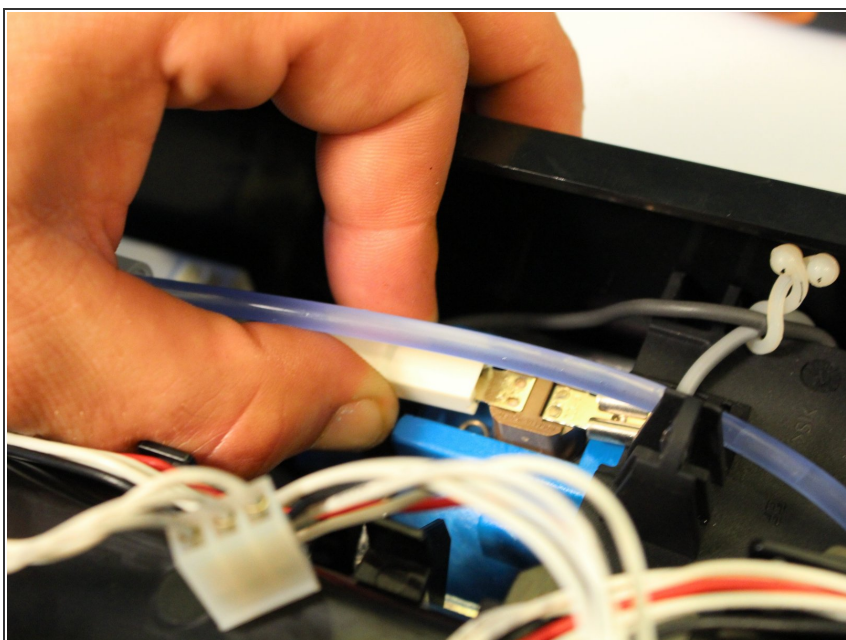
- The pump feed tube uses a clever retaining clip. Remove this clip with your pliers. It does not require much force.
- Repeat this for the clip attaching the valve to the water heater.

Step 17



- Remove the valve assembly from the frame.

Step 18



- Disconnect the power cable from the spade connector on the side of the water pump.

Step 19



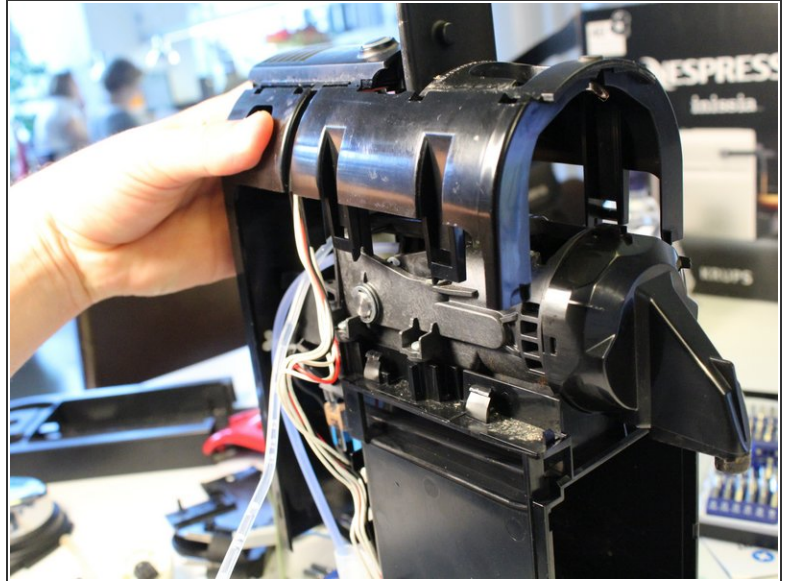
- Remove the side panel from the other side of the unit. The tab positions are similar to the first side panel.

Step 20



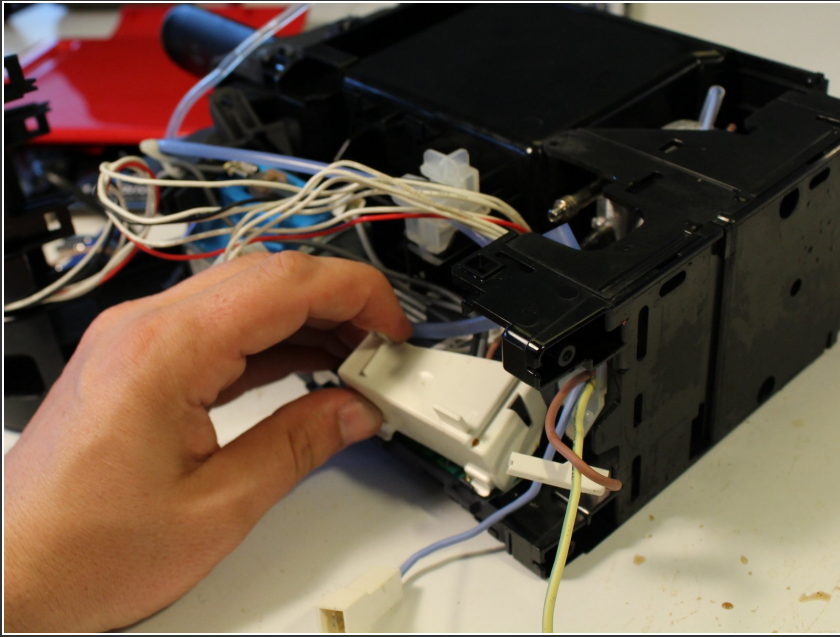
- Disengage the tabs holding the top assembly to the case.

Step 21



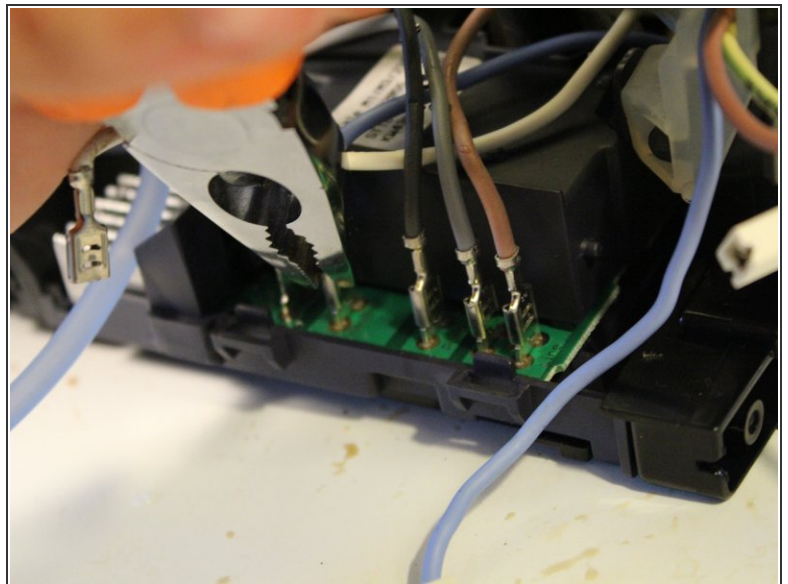
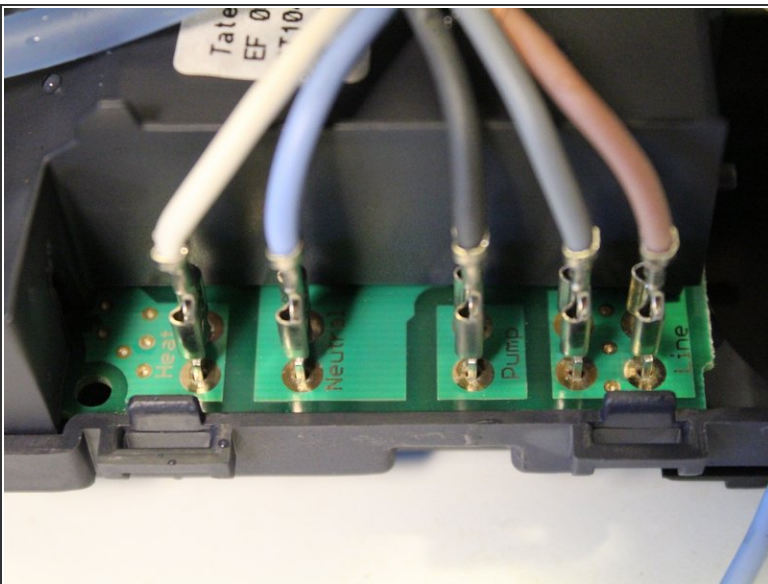
- Remove the front spout.
- Remove the top case. Be careful, the button cables are captive to the case. Disentangle the cables and set the top next to the frame.
- ⓘ You will not be able to completely remove the top case until the circuit board is removed. (The button cables do not disconnect from the main circuit board.)

Step 22



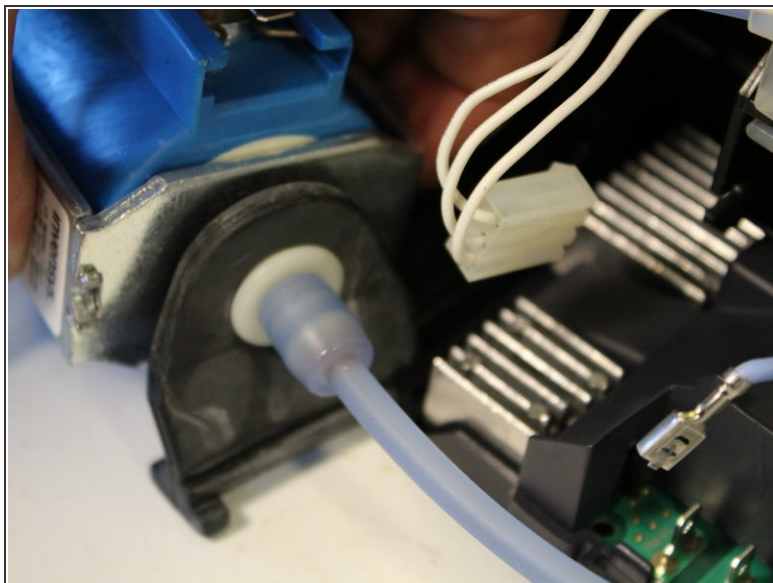
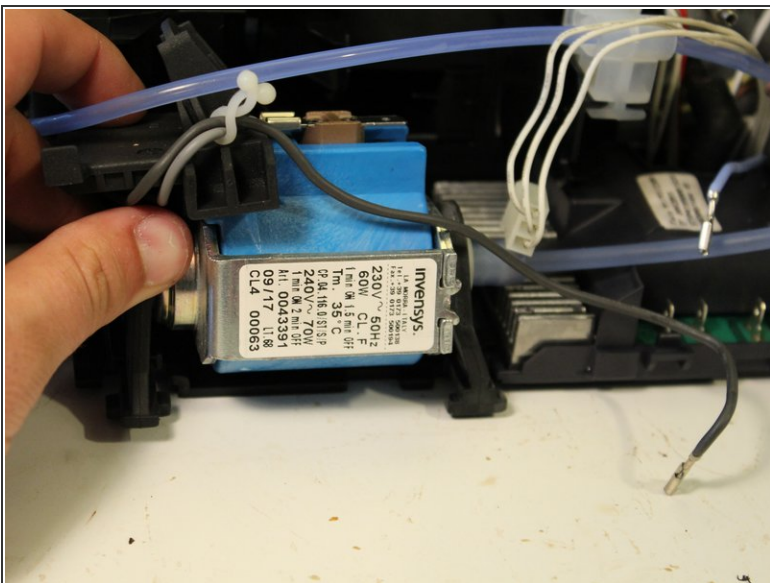
- Remove the plastic outer circuit board cover.

Step 23



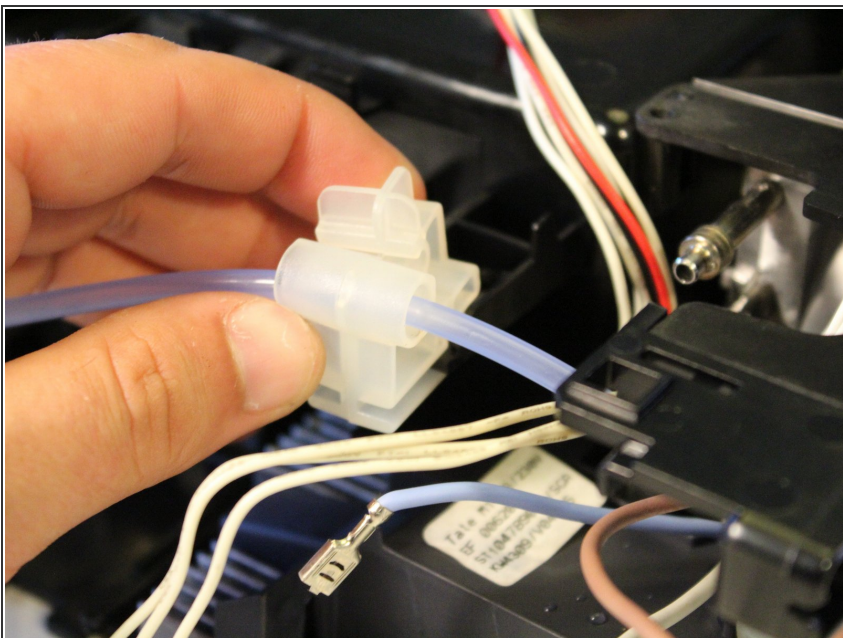
- Power cables, from left to right: heat (white), neutral (blue), pump (dark grey), pump ground? (light grey), line (brown).
- Disconnect each cable with your pliers.

Step 24



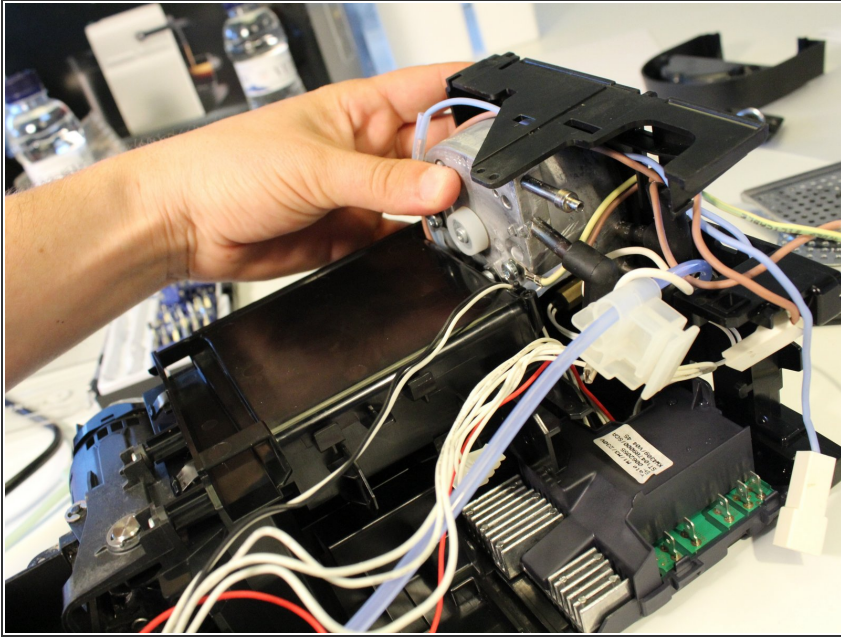
- Slide the water pump out. The rubber vibration isolator doubles as a mounting bracket that neatly slides out from the plastic frame.

Step 25



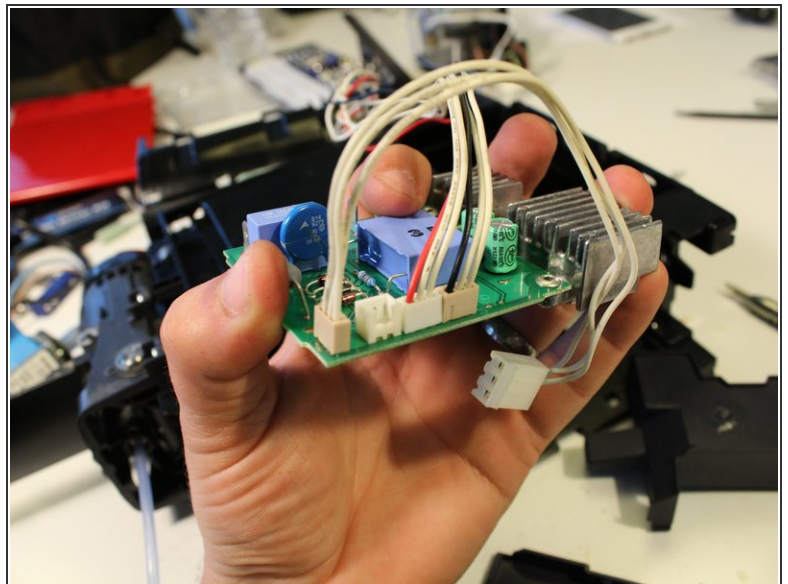
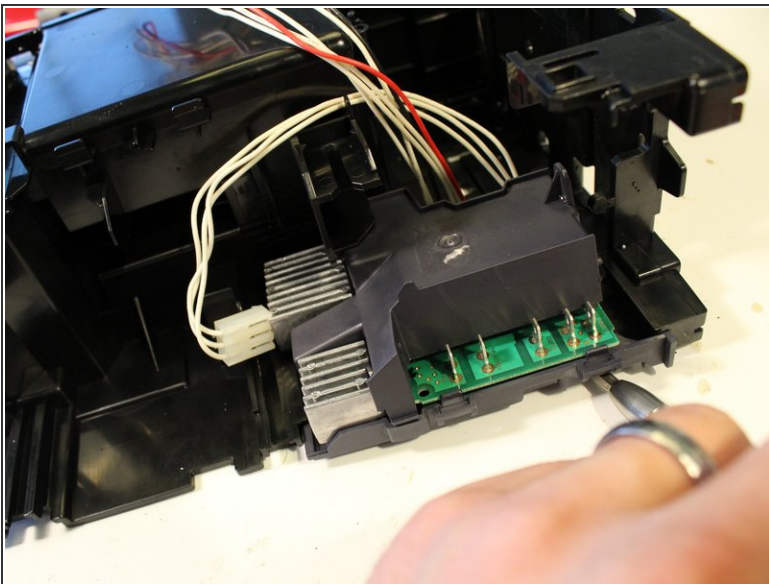
- Remove the (rather over-engineered) silicon mounting bracket holding the coffee feed line in place.

Step 26



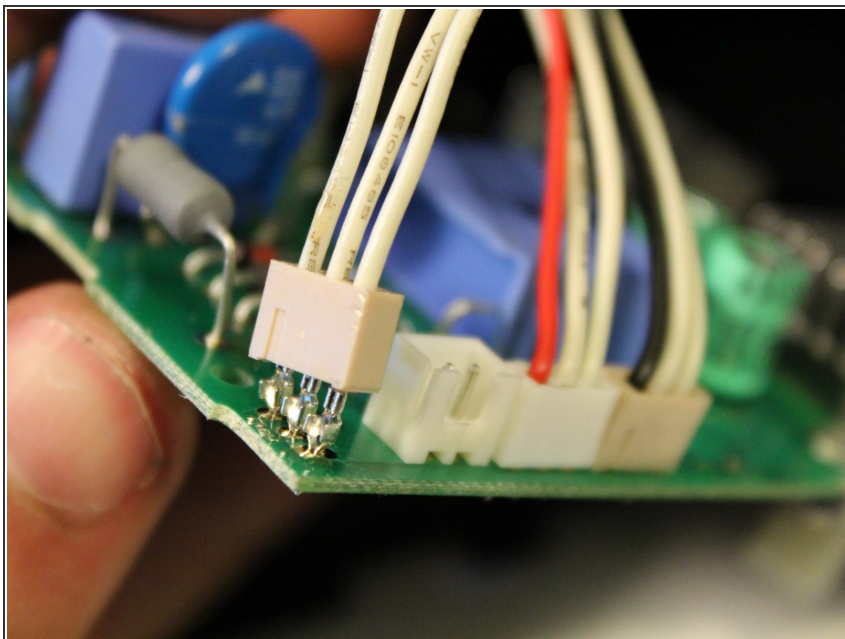
- Disconnect the latches and slide the heating assembly out of the frame.

Step 27



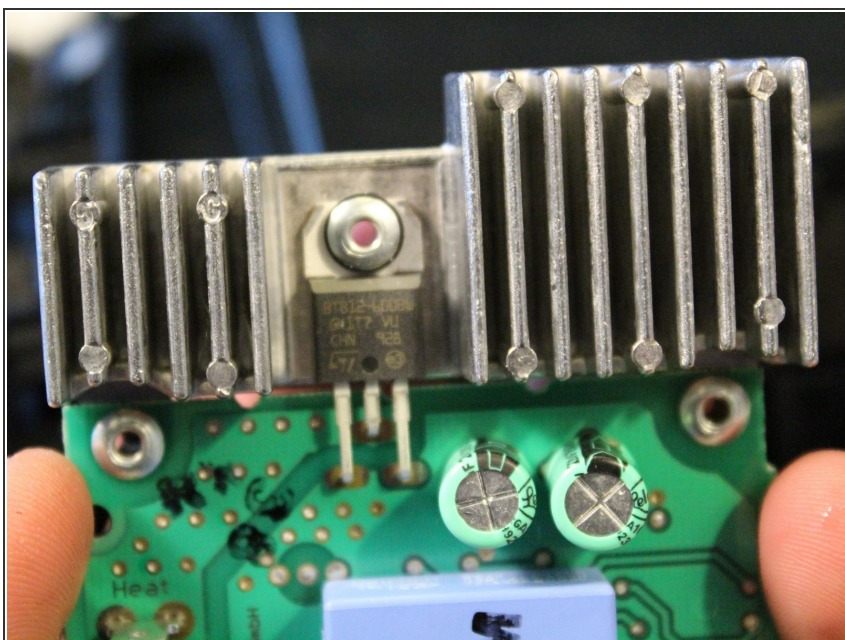
- Free the latch on the right side of the circuit board and then carefully lever it out.
- Don't use too much force on the plastic bracket on top of the circuit board because there are two vulnerable capacitors on the rear left side of the board.

Step 28



⚠ The remaining cables can not be removed from the board. Don't try!

Step 29



- The [BTB12 AC](#) 12 Amp triac requires a large heat sink that is riveted onto the main board.

Step 30

