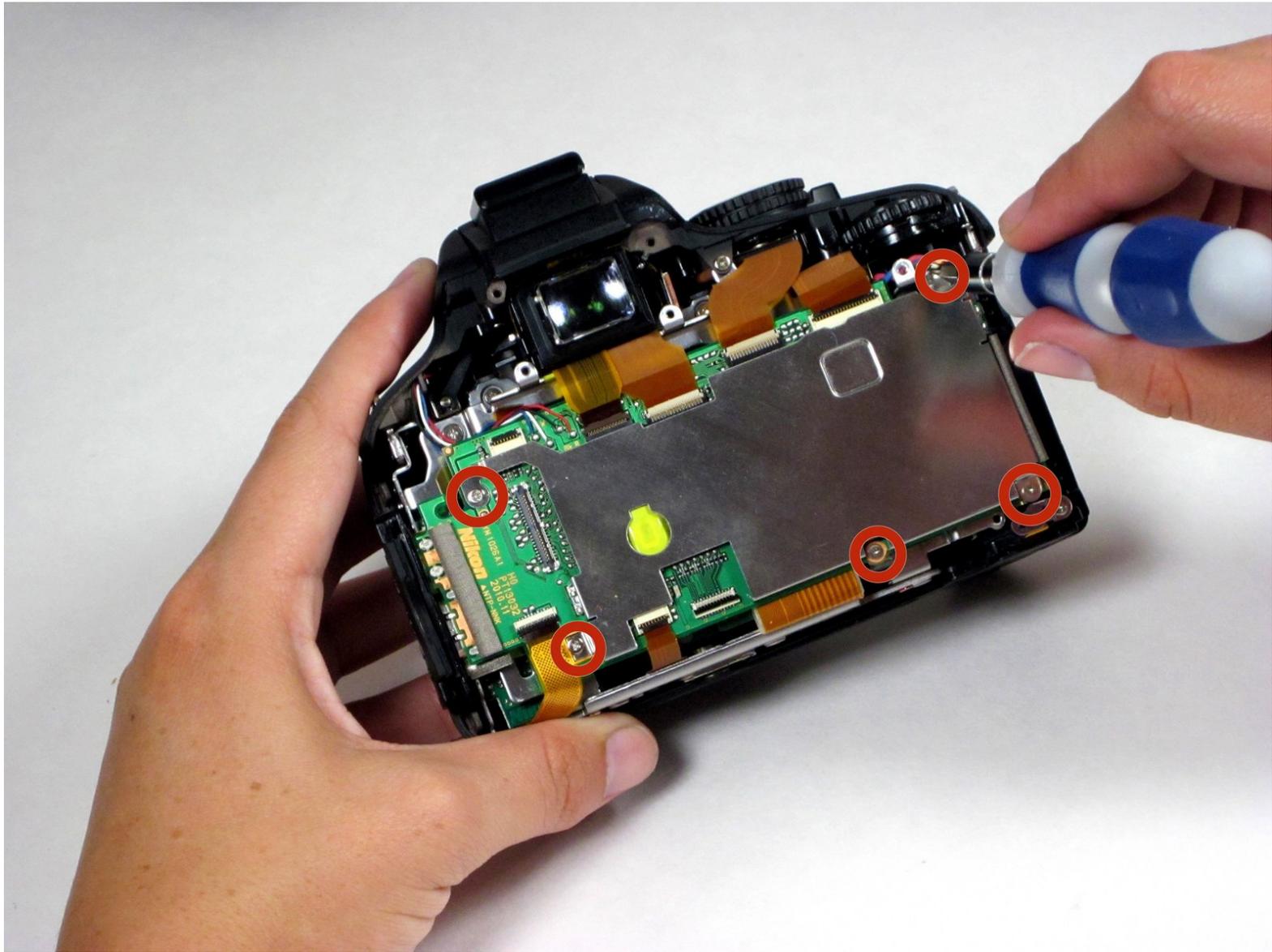




Nikon D5100 Motherboard Replacement

Guide to replace the D5100's motherboard.

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INTRODUCTION

Your camera's motherboard, the main system circuit board which processes inputs and produces outputs, is essential to system operation. This guide will teach you how to access and remove the D5100's motherboard.

TOOLS:

- [Phillips #00 Screwdriver](#) (1)
 - [Spudger](#) (1)
 - [Desoldering Braid](#) (1)
 - [Soldering Workstation](#) (1)
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Step 1 — Rear Panel



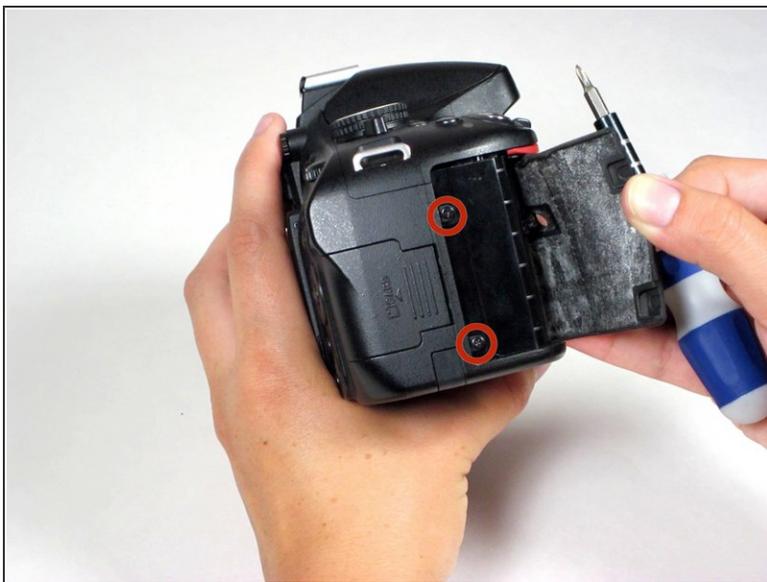
- Remove the five screws around the camera using a Phillips #00 screwdriver.
- ⓘ Remember that we're removing the rear panel, so for this step, only remove screws on the appropriate side of the seam separating the rear and front panels.
- ☞ The D5100 is held together by a large number of screws, which come in several sizes. Make sure to keep your screws organized so that you don't lose or misplace them!

Step 2



- Use your fingernail to gently peel back the black rubber thumb grip, attached to the chassis with a strong adhesive.
- Use the Phillips #00 to remove the screw underneath the black rubber grip.

Step 3



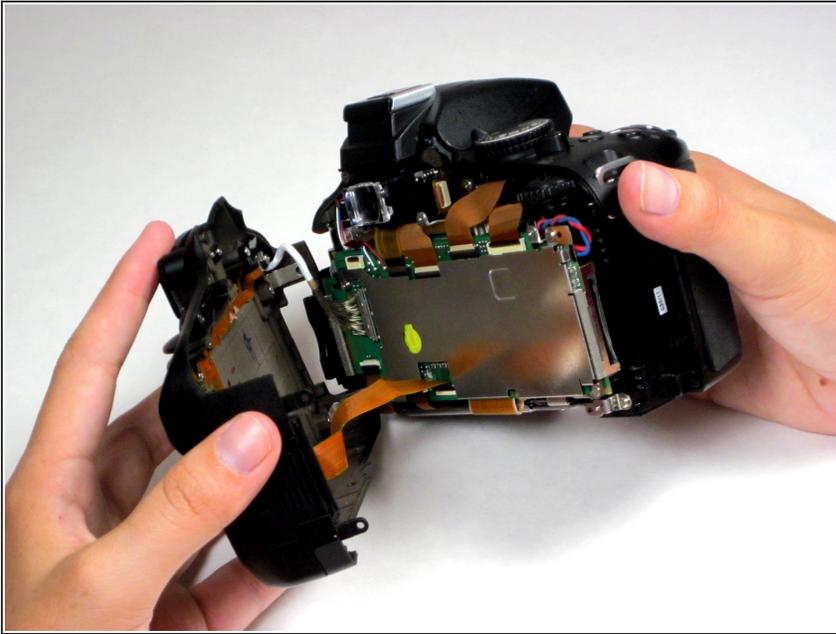
- Carefully peel back the black rubber hand grip, which is attached to the chassis with a strong adhesive.
- Use the Phillips #00 to remove two screws beneath the handgrip.

Step 4



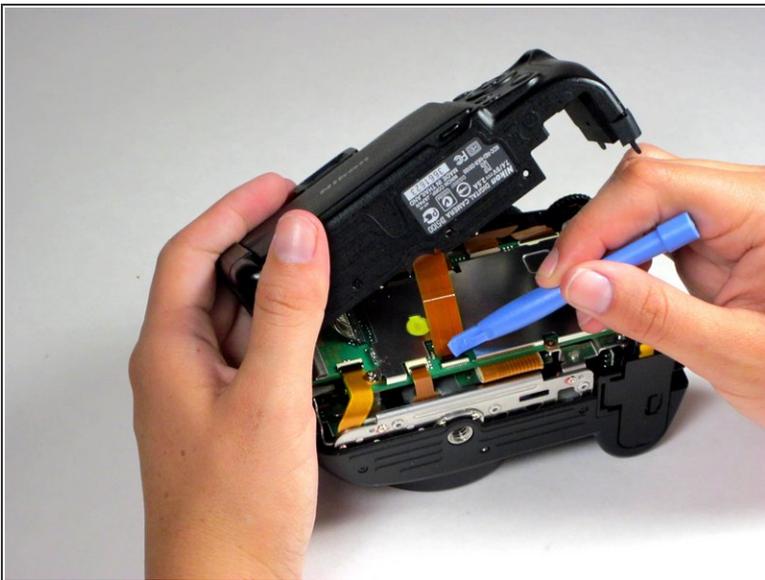
- Using a spudger, pry off the diopter adjustment dial cover and remove the screw underneath.
⚠ Be sure to remove the very thin cover from the dial, and not the dial itself.
- ⓘ The dial cover is not shown in this picture.
- Next, using a Phillips #00 screwdriver, remove the three Phillips screws around the viewfinder.

Step 5



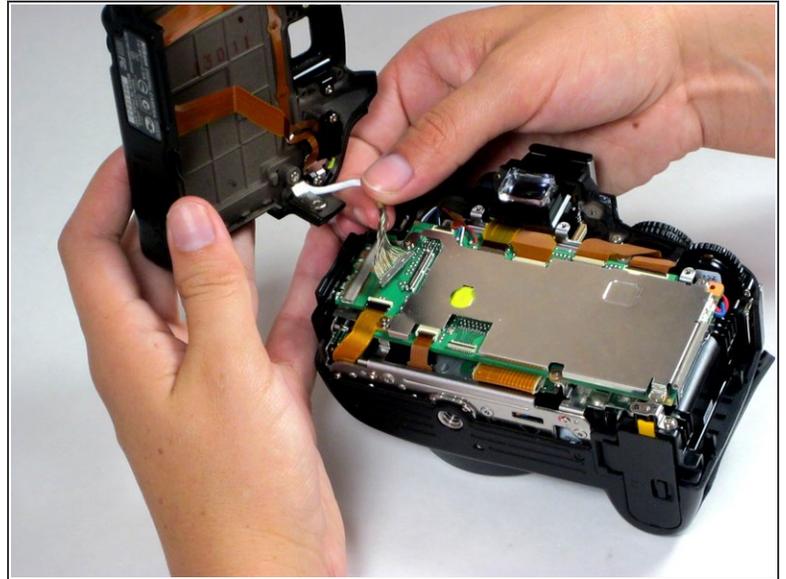
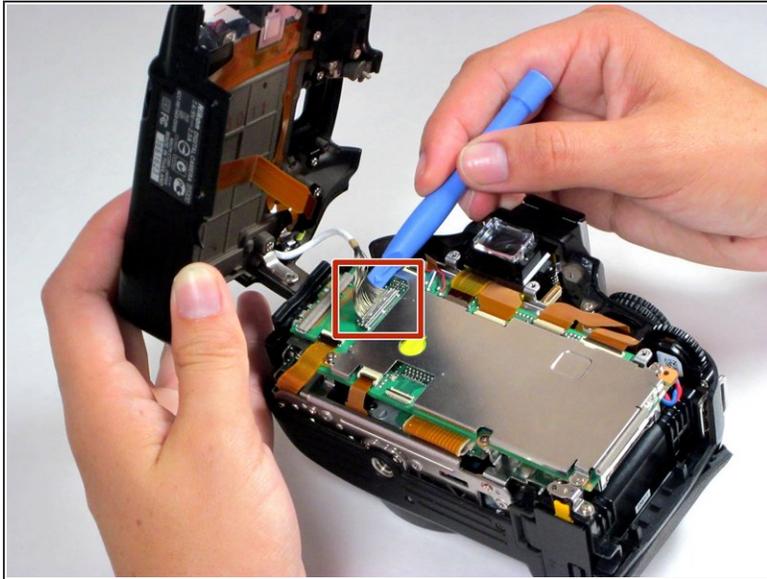
- Carefully separate the rear panel from the camera body.
- ⓘ You will notice some resistance because the two pieces of the camera fit together tightly.
- ⚠ Be careful not to damage the chassis or ribbon cables. Use a firm grip to pull the two halves apart.

Step 6



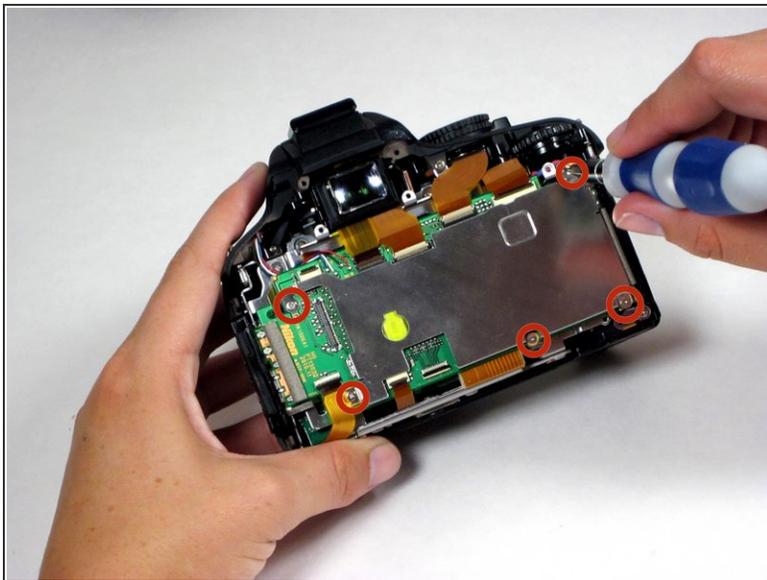
- Remove the dark orange ribbon cable attaching the rear panel to the motherboard by flipping the black plastic clasp up, away from the motherboard, and pull the cable out of its white casing in the direction of the cable.
- ⓘ Using the flat edge of a spudger can help with this delicate task.

Step 7



- Remove the silver 16-pin cable by pulling gently upwards, away from the inside of the camera, until it separates from its port.
- At this point, the rear panel is fully separated from the main body of the camera.

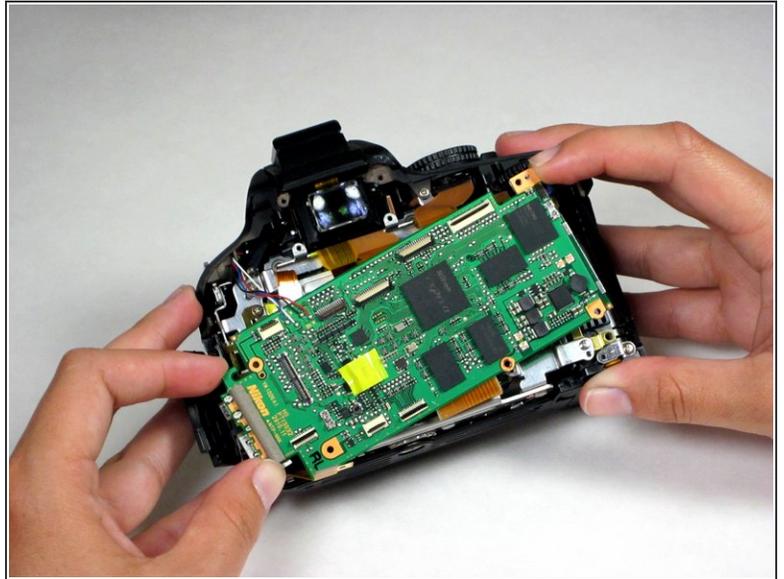
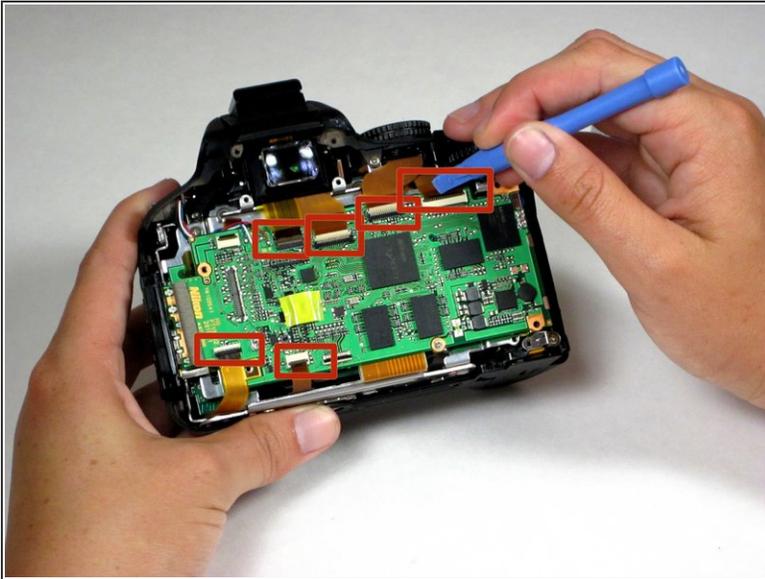
Step 8 — Motherboard



- Use a Phillips #00 screwdriver to remove the five screws holding the motherboard cover plate. Starting with the right side, lift the plate and remove it from the camera body. Set the plate aside.

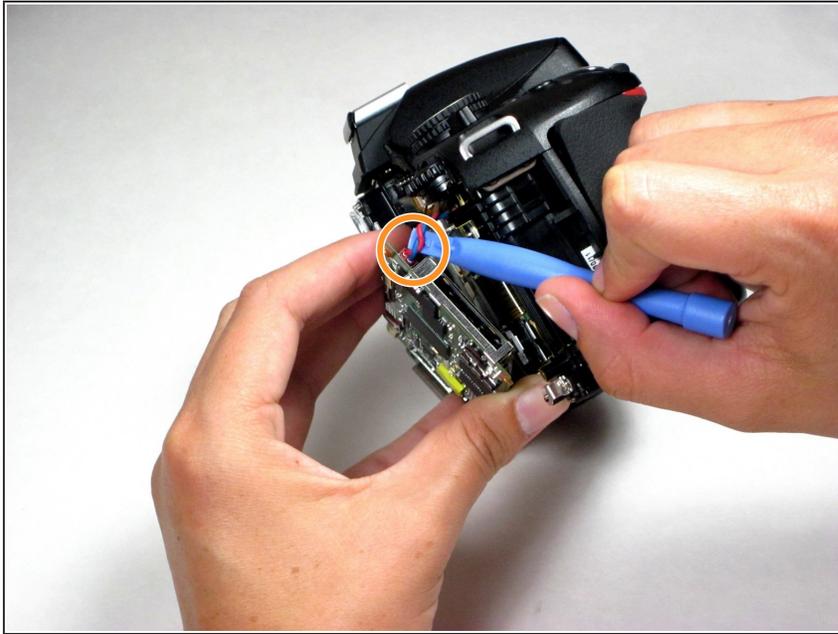
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Step 9



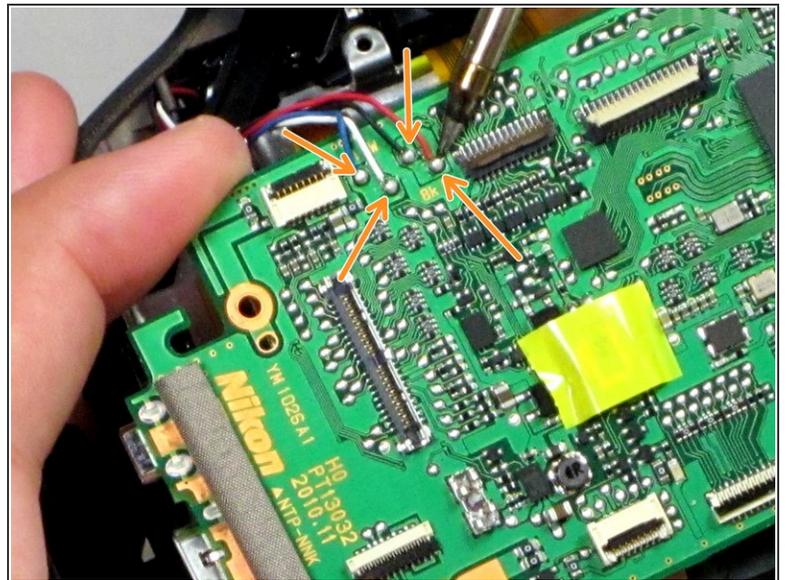
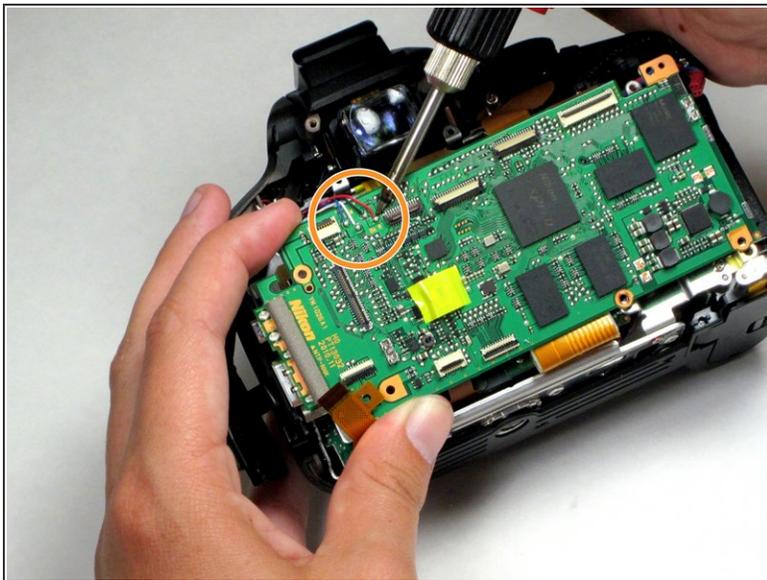
- Located on top of the motherboard, there are six dark orange ribbon cables. Flip the black plastic lock at each cable up to unlock the cable. Pull the cables straight back away from the white connector to release it.
- ⓘ At this point, the motherboard is able to emerge partially from the main body of the camera, but is still tethered by a few wires.

Step 10



- Using a spudger, slide underneath the twisted red and blue cables and gently pull away from the camera body. This will disconnect them from the motherboard.

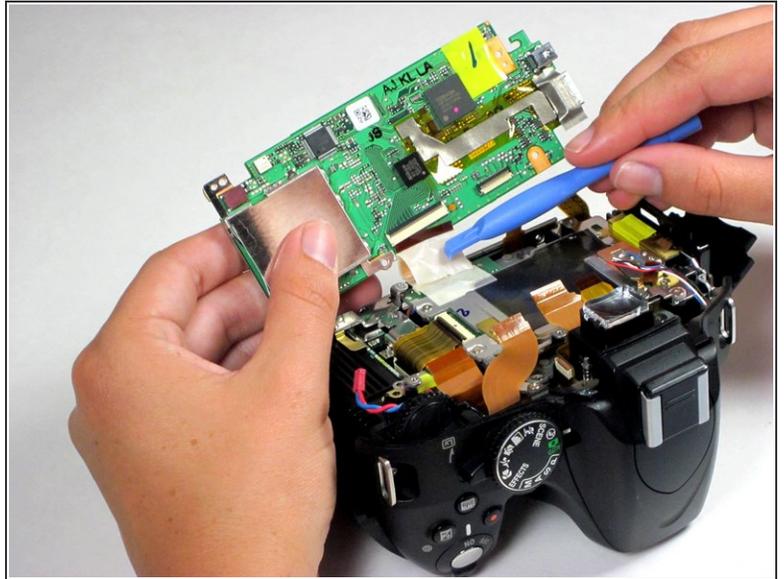
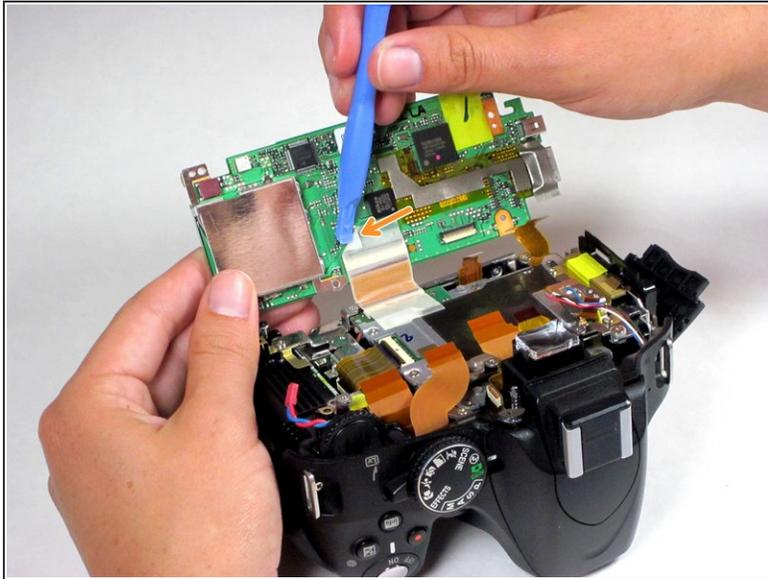
Step 11



- Desolder the black, white, blue, and red wires that are fixed to the upper left-hand portion of the motherboard.

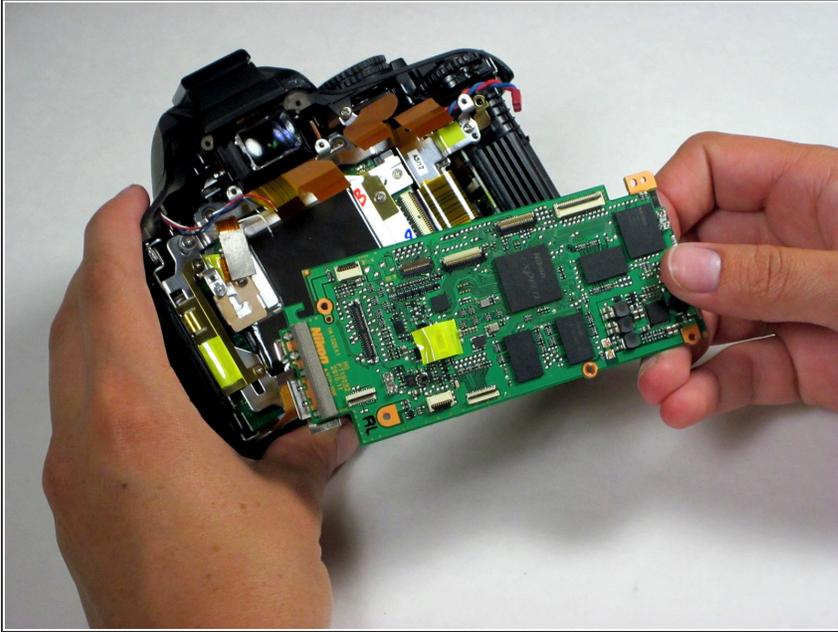
⚠ Soldering is a dangerous activity that uses intense heat and can produce harmful gases. Take all necessary precautions.

Step 12



- Flip the motherboard out of the camera's body, toward the bottom of the device, to expose its underside.
- Using a spudger, peel back the adhesive, that is protecting the large ribbon cable on the underside of the motherboard.
- Disconnect the ribbon cable by flipping its clasp up and removing it from the plastic casing in the direction of the cable.

Step 13



- The motherboard is now free of all connections to the camera. Remove it from the camera body.

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