



Nikon D5100 Motherboard Replacement

Guide to replace the D5100's motherboard.

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INTRODUCTION

Your camera's motherboard, the main system circuitboard 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 Iron](#) (1)
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Step 1 — Rear Panel



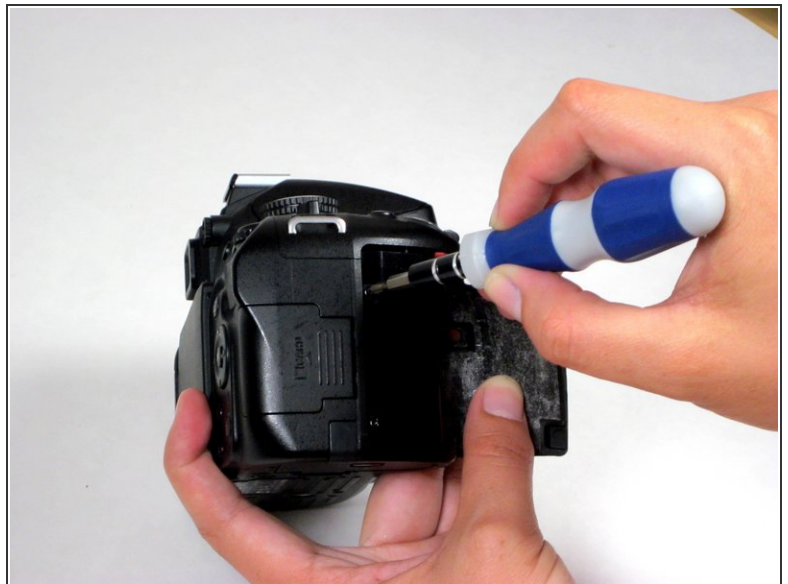
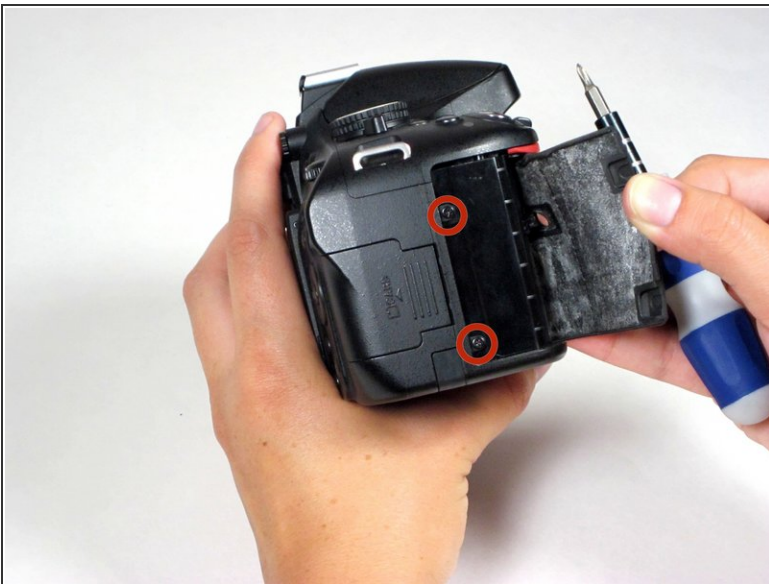
- Using a Phillips #00 screwdriver, remove 5 exposed screws from around the perimeter of the camera.
- ✦ Remember that we're removing the rear panel, so for this step, only remove screws on the appropriate side of the seam separating the rear and front panels.
- ⓘ The D5100 is held together by a large 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



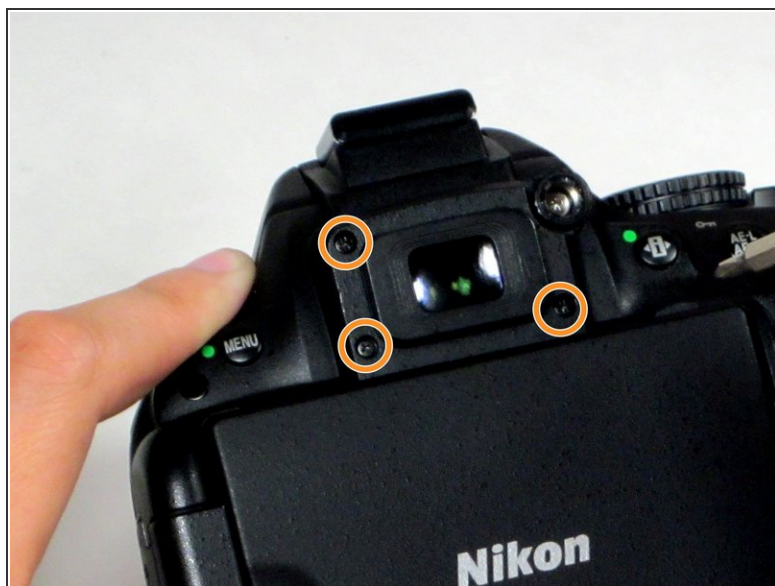
- Using a fingernail, gently peel back the black rubber thumb grip, which is attached to the chassis with a strong adhesive, and remove the concealed screw underneath it.

Step 3



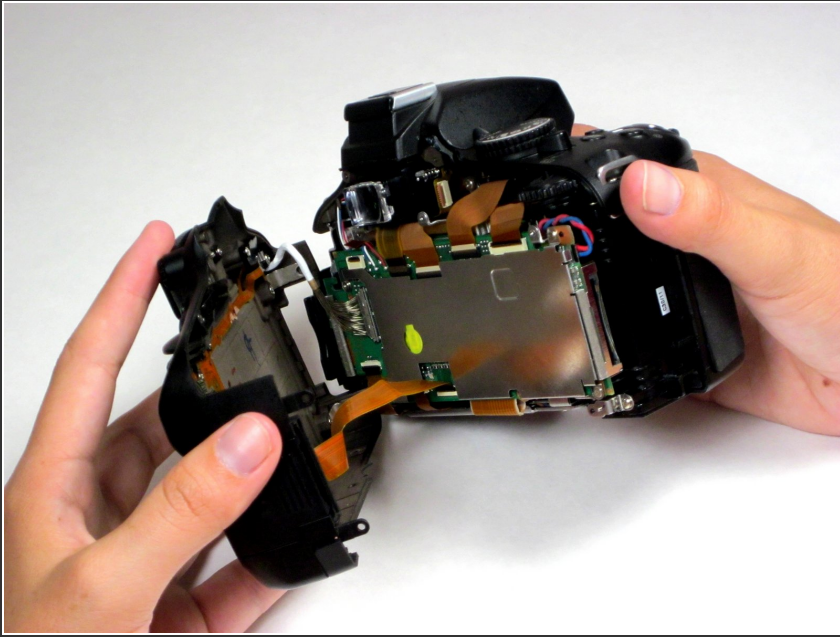
- Carefully peel back the black rubber hand grip, which is attached to the chassis with a strong adhesive, and remove the two screws concealed underneath.

Step 4



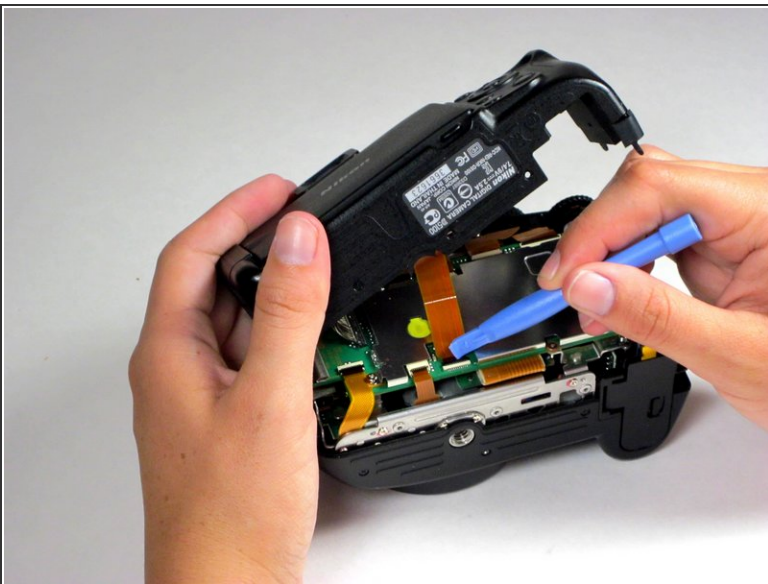
- Using a spudger, pry off the diopter adjustment dial cover and remove the screw underneath.
 - ⚠ Be sure to remove the very thin cover from the dial, and not the dial itself.
 - ⓘ The dial cover is not shown in this picture.
- Next, remove the three Phillips screws around the viewfinder.

Step 5



- Slowly and carefully begin to separate the rear panel from the camera body.
- ⓘ You will notice some resistance, as the two pieces of the camera fit together tightly. Take care not to damage the chassis, but use a firm grip to pull the two halves apart.

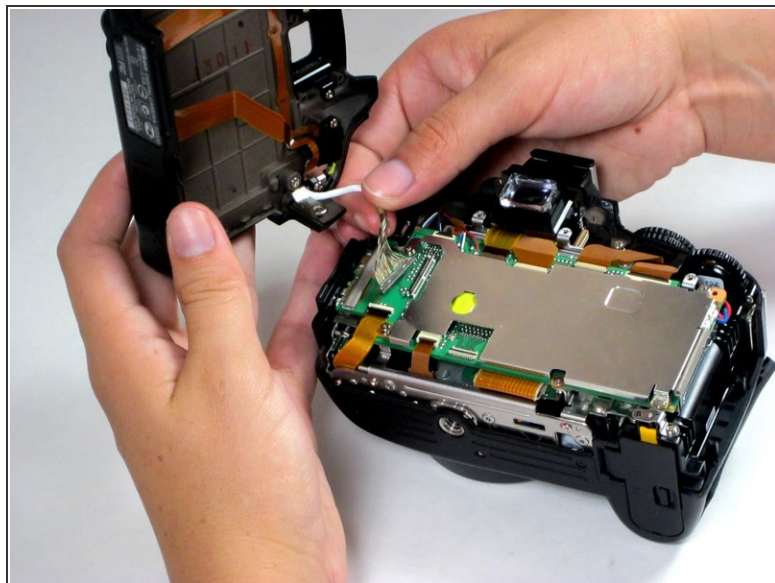
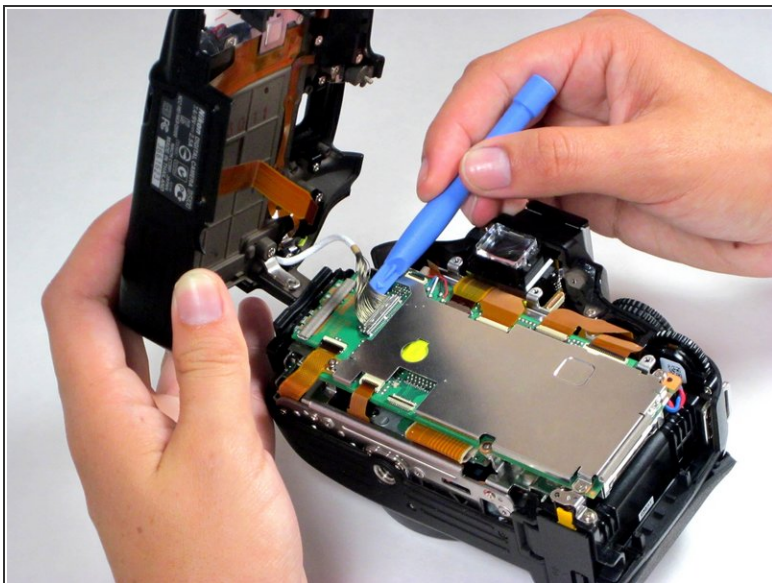
Step 6



- 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 pulling the cable out of its white casing in the direction of the cable.

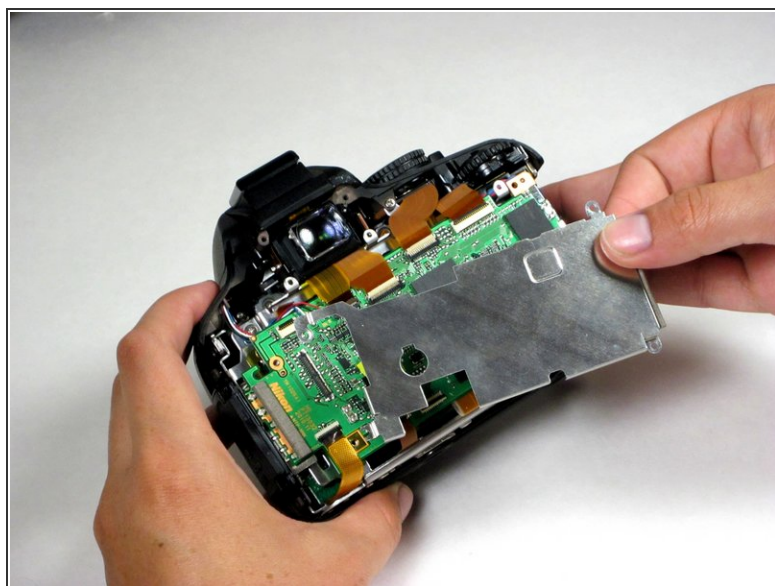
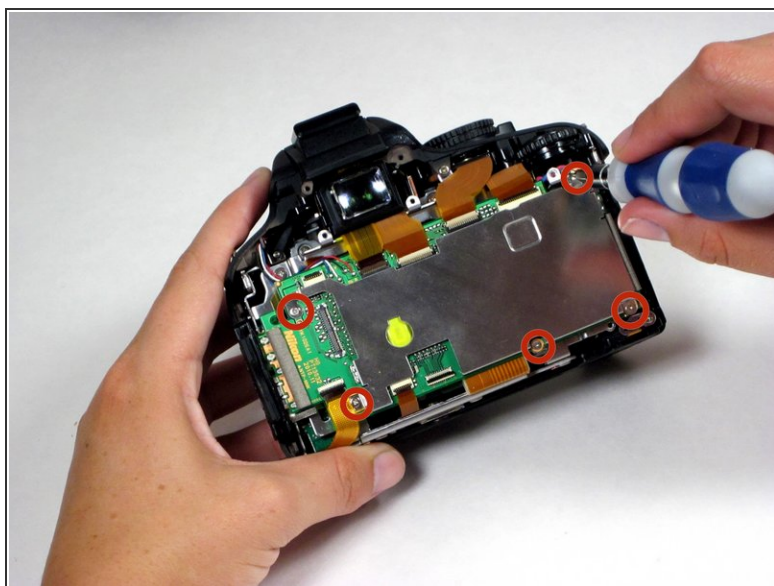
✦ Using the flat edge of a spudger can help with this delicate task.

Step 7



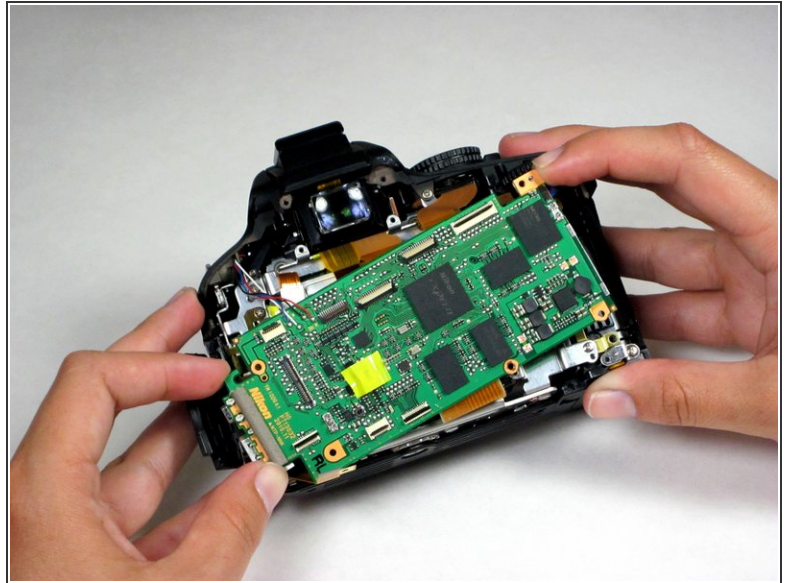
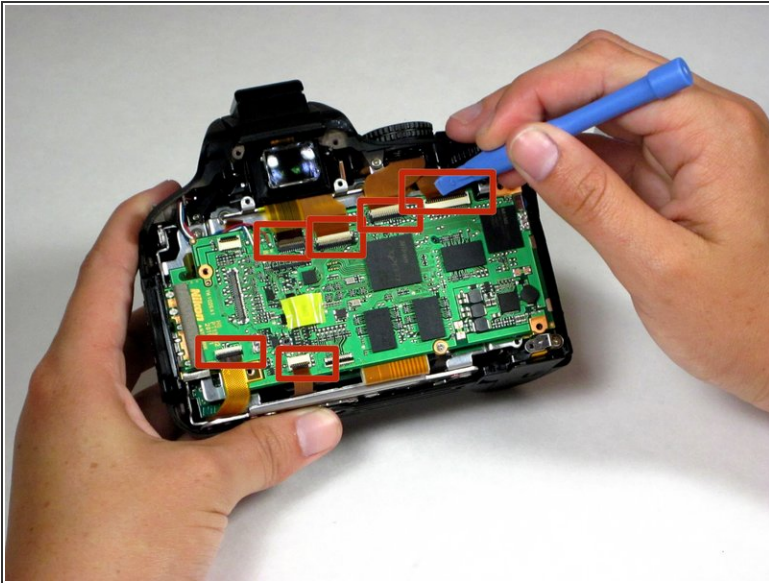
- Remove the silver 16-pin cable by pulling gently upwards, away from the inside of the camera, until it separates from its port.
- At this point, the rear panel is fully separated from the main body of the camera.

Step 8 — Motherboard



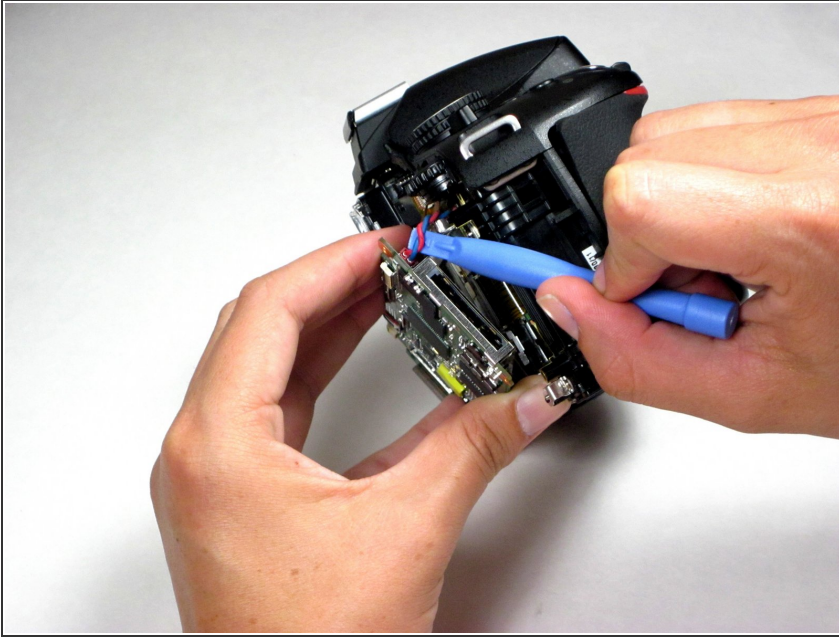
- Using a screwdriver, remove 5 Phillips #00 screws to release the motherboard's steel cover plate. Lift the plate, starting with the left side first, and remove it from the camera body. Set the plate aside.

Step 9



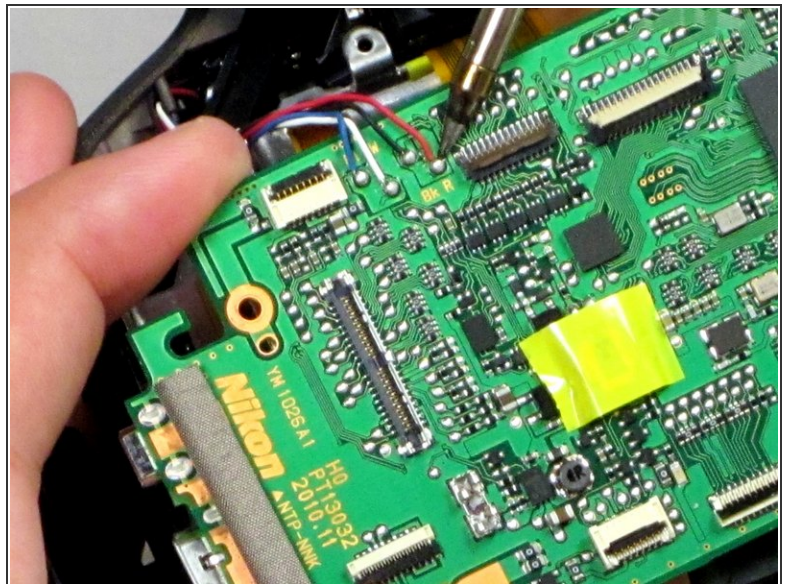
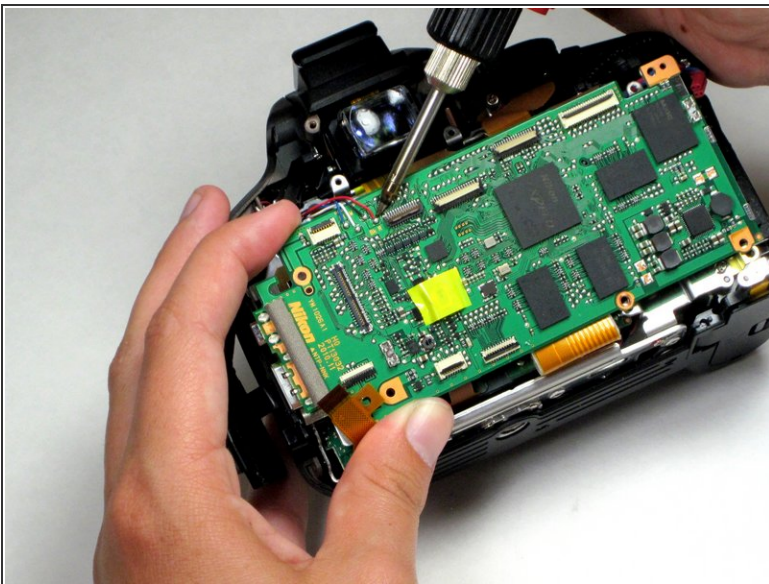
- Remove each of 6 dark orange ribbon cables attaching the motherboard to the camera's other components by flipping their black plastic clasps up, away from the motherboard, and pulling them out of their white casing in the direction of the cable.
- ⓘ At this point, the motherboard is able to emerge partially from the main body of the camera, but is still tethered by a few wires.

Step 10




- Disconnect the twisted red and blue cables from the right-hand side of the motherboard by simply pulling them out of their port.

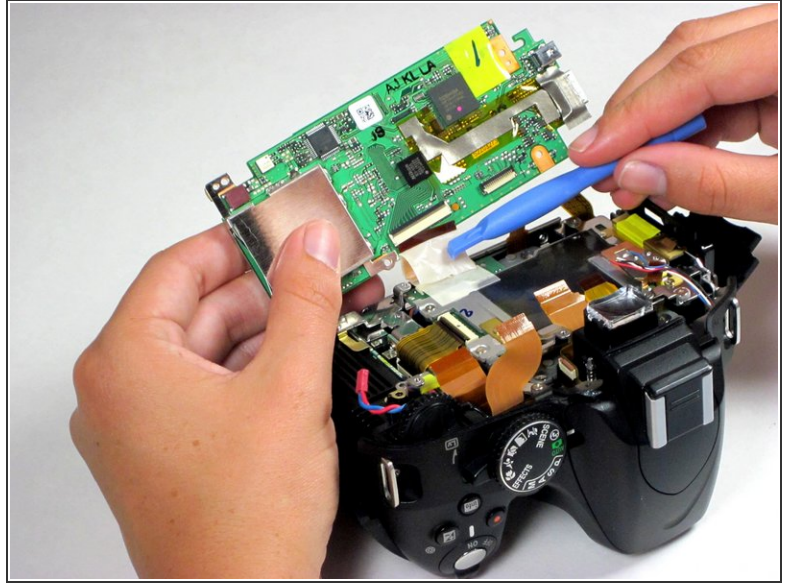
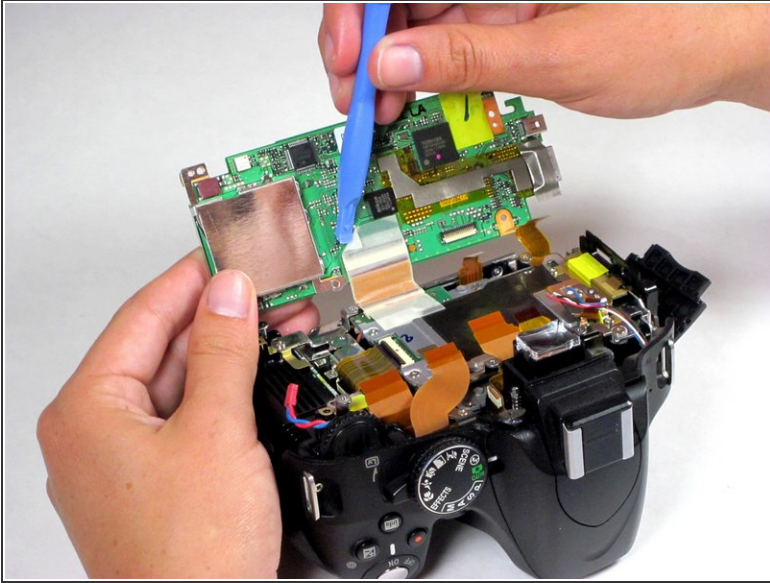
Step 11



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

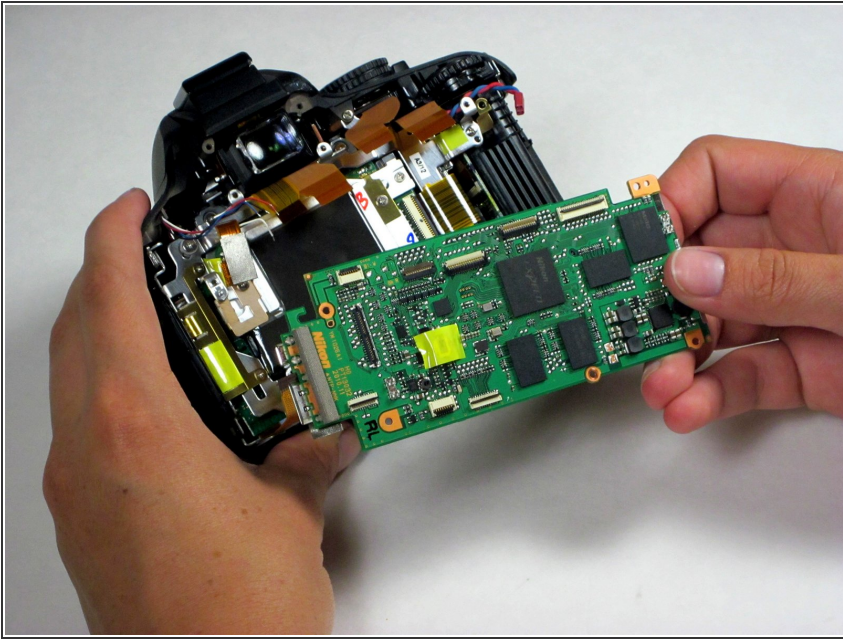
 Soldering is a dangerous activity that uses intense heat and can produce harmful gases. Take all necessary precautions.

Step 12



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

Step 13



- At this point, the motherboard is free of all connections to the camera; remove it from the camera body.

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