



Sony Alpha 5100 Teardown

I took my camera apart in order to fix it. Hope my pictures will help someone out there!

Written By: Kirill



INTRODUCTION

You can find spare parts here:

<https://sony.encompass.com/model/SONILCE...>

I think this is fairly technical and difficult procedure. Please take extra notes!

And keep extra track of all the screws. I won't specify screw sizes since I do not possess that information!

TOOLS:

- iFixit Opening Tools (1)
- iFixit Opening Picks set of 6 (1)
- Mako Driver Kit - 64 Precision Bits (1)
- Tweezers (1)

Step 1 — Prepare for disassembly!



- Turn your camera off
- Remove battery
- Remove memory card
- Detach camera belt if you have it attached to the camera

⚠ You might want to disconnect camera lens as well. Just remember to keep your image sensor away from the dust and your own fingers!

Step 2 — Remove Flash Plate Cover



- Removing single mounting screw of the flash plate cover
- Using opening tool or guitar pick pop the plate off. There is a little hook so do not force it! Yellow square shows opening where the flash plate cover hook goes.
- Gently slide the plate off the camera body. You might have to move display out of the way couple times.

Step 3 — Remove Front Plate (part 1)



- First picture illustrates what we are trying to remove
- Pop the flash. And remove first screw
- Remove 2 more screws on the side of the body

Step 4 — Remove Front Plate (part 2)



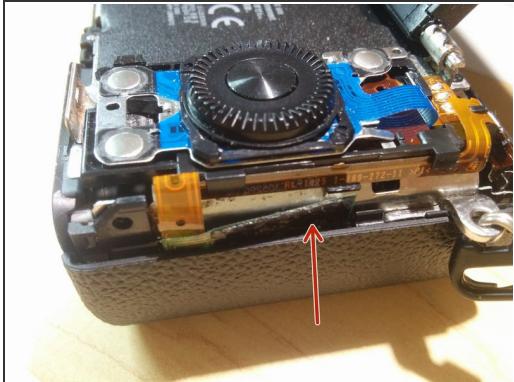
- Pop the memory card door open
- Remove 2 more screws
- Remove 3 more screws from the bottom of the camera

Step 5 — Remove Front Plate (part 3)



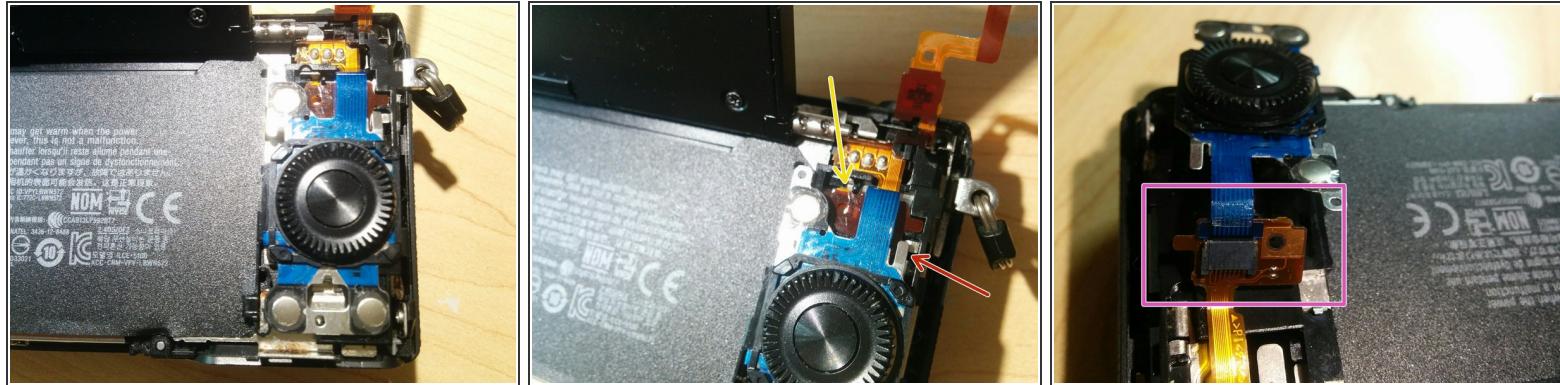
- Use opening tool, guitar pick (or whatever else) to pop the front plate apart from the main body.
- ⚠ Be very gentle!
- Remove the front plate

Step 6 — Remove NFC flex circuit assembly



- Gently separate NFC flex circuit from the body. It might be glued to the body so take extreme care not to damage it!
- Continue separating circuit down the line. Should be pretty obvious procedure...
- Remove movie button from the body of the camera as well. Move flex circuit out of the way.

Step 7 — Remove Button Panel



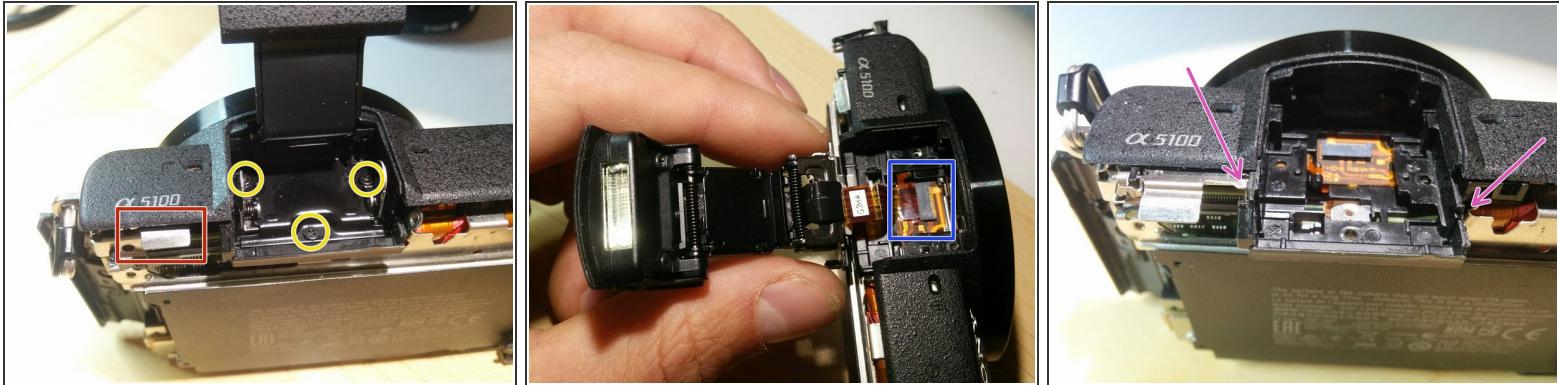
- Pop little metal stopper of the button panel away from plastic body of the camera. (Look at pictures 1 and 2 to find a difference)
- Slide the whole button assembly up until you can separate it from the body.
- Gently pry green flex circuit assembly from the middle body. See picture #2.
- Now you can remove button panel flex circuit from middle body flex circuit. (Read: blue flex from green flex). And separate button panel completely from the camera!

Step 8 — Remove LCD screen



- Remove 2 screws holding LCD screen assembly
- Pry LCD screen assembly away from the camera body. Use opener tool, guitar picks, whatever. Be gentle!
- Carefully move LCD screen away from the body. It will be still connected to the PCB via flex circuit!
- Pop little latch of the LCD screen connector and gently disconnect LCD screen from the camera body.

Step 9 — Remove Flash



- Pop flash once again. You won't have actual button but you still have metal lever to do so.
- Unscrew 3 screws that attach flash to the camera body.
- Gently move away flash from the body. Disconnect flash flex circuit from the camera body. No latches this time!
- Carefully slide flash tray out of the camera. See last picture illustrating tray mid way out of the camera. Pull the tray completely away from the body.

Step 10 — Remove Mid Frame (part 1)



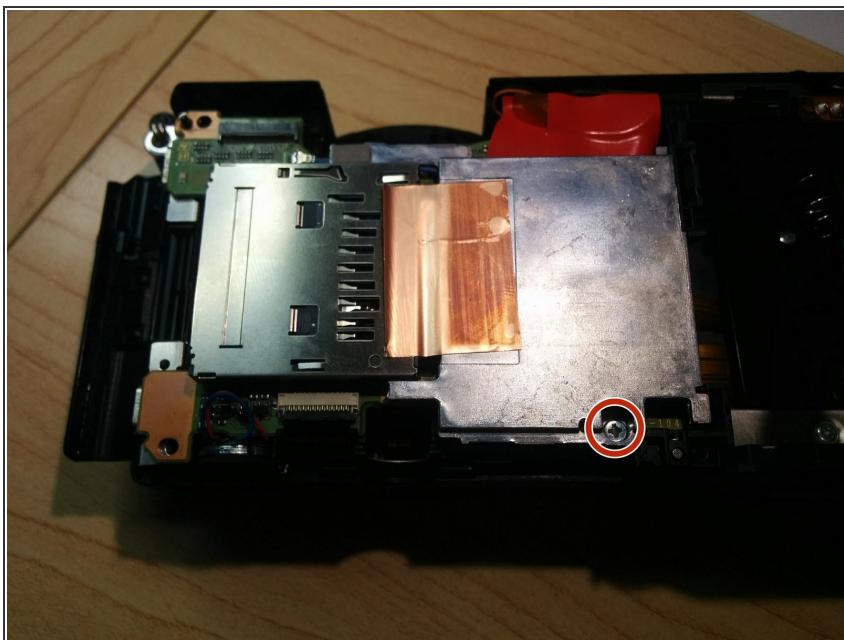
- Remove 2 screws
- Remove 1 screw. I am not 100% sure but I think it is black one. The rest of them are silver.
- Remove yet another screw
- And the last screw, tucked away behind the frame. Might require pretty skinny screw driver...

Step 11 — Remove Mid Frame (part 2)



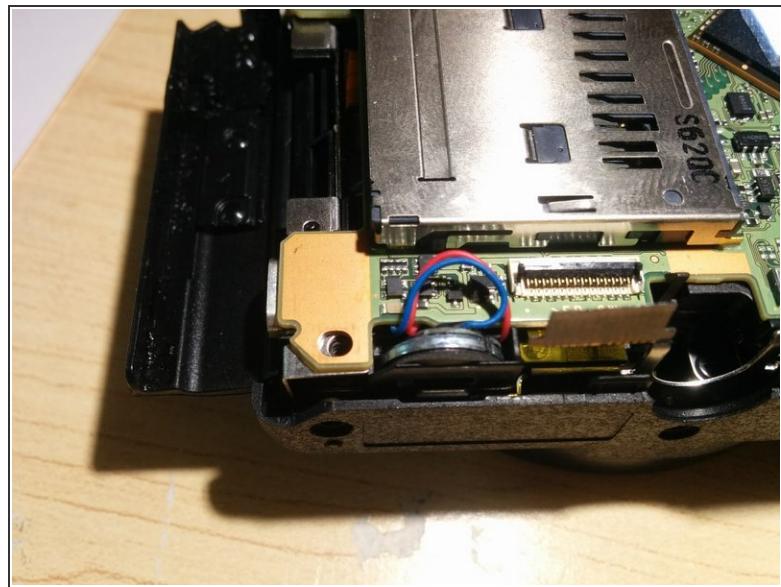
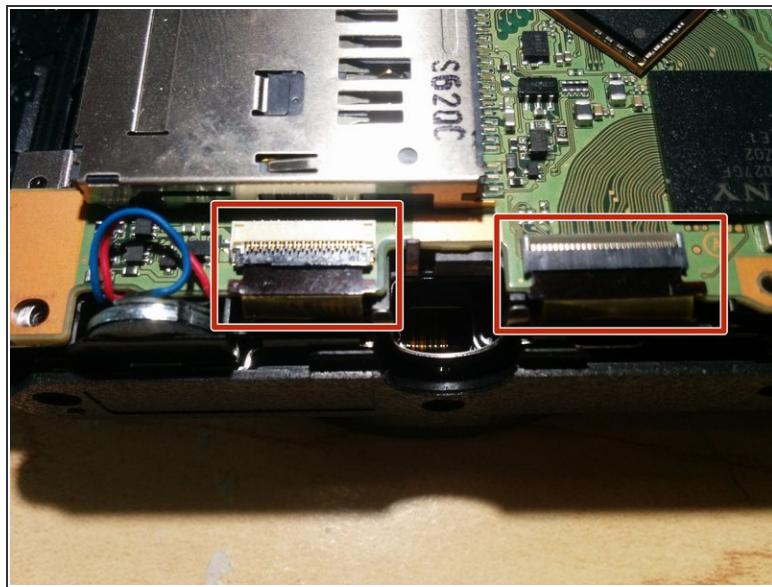
- Gently pry the mid frame from the body. Make sure all the flex circuits are out of the way. This step might be tricky. The frame might be glued so take extreme care not to damage anything!
- You probably do not have to remove camera mount. But I did so anyway!
- You probably won't have to remove camera belt clip either. I would recommend using it as extra leverage while removing mid frame from the body.

Step 12 — Remove Heat Sink



- Unscrew single heat sink screw.
- Detach sticker from the memory card connector.
- Remove heat sink. It might be glued with thermal paste to the motherboard.

Step 13 — Disconnect Motherboard (part 1)

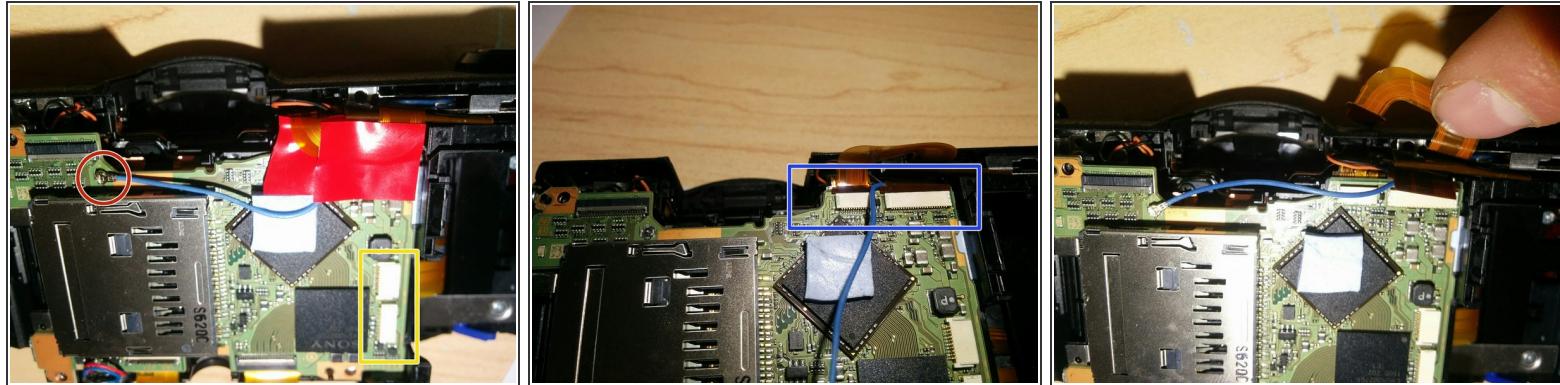


- Open latches using guitar pick or opening tool.
- Disconnect image sensor flex circuits from the motherboard.

⚠ Gently pry flex circuit from the connector! Be careful to apply just enough force!

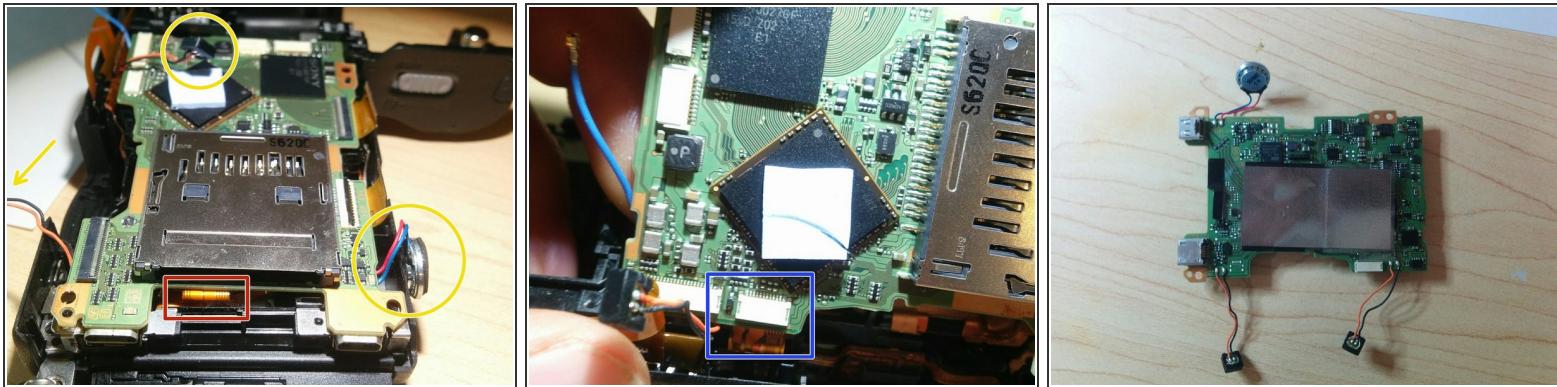
- You may pull the speaker out of the enclosure using tweezers while you are working around this area.

Step 14 — Disconnect Mother Board (part 2)



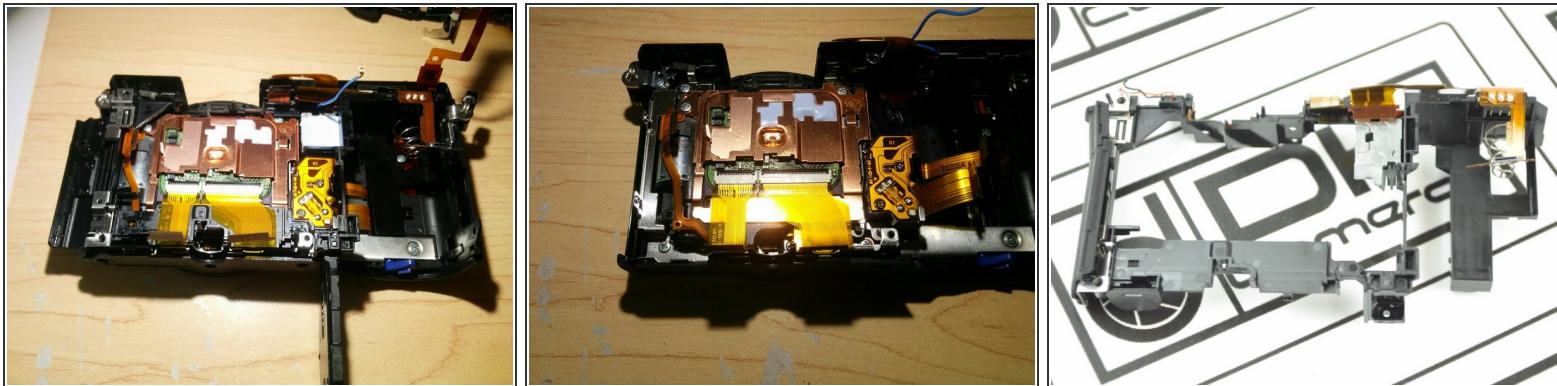
- Disconnect WiFi antenna cable. Very gently pry it off!
- Disconnect 2 camera lens flex circuits in the right bottom corner of the mother board. No latches here!
- Lift masking tape away from the mother board. Most likely your masking tape is going to be black not red!
- Disconnect 2 more flex cables. One of those is power flex circuit and the other one is either flash or buttons flex circuit.

Step 15 — Disconnect Mother Board (part 3)



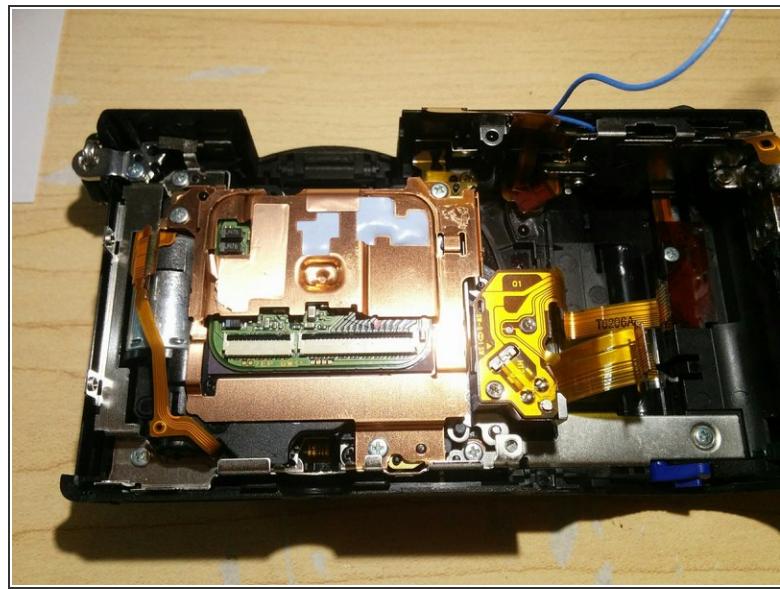
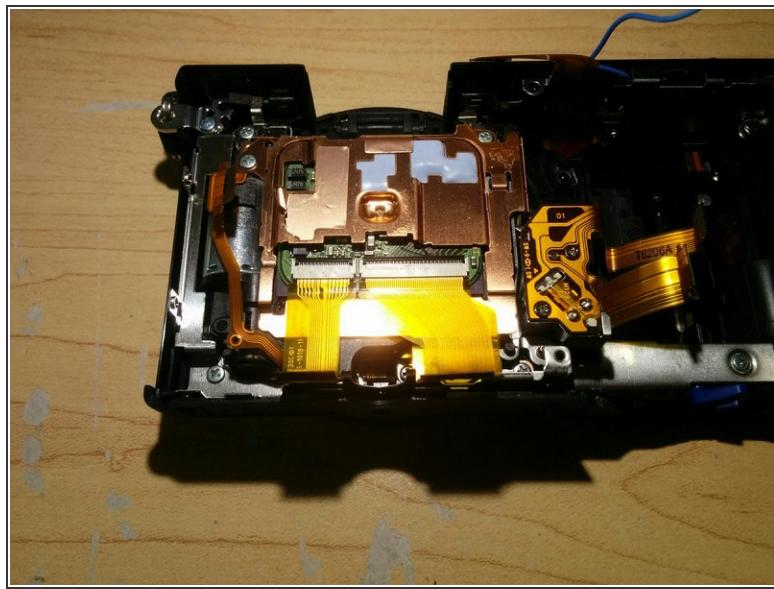
- Disconnect shutter flex cable from the bottom side of the mother board. No latch here. Gently pry off! I bet you are master at disconnecting those off by now!
- Make sure that both microphones and speaker is out of the camera body at this point.
- Disconnect one more flex circuit connected to the bottom of the mother board. No latch here. It is either flash or buttons flex circuit.
- Remove motherboard.

Step 16 — Remove Plastic Body Assembly



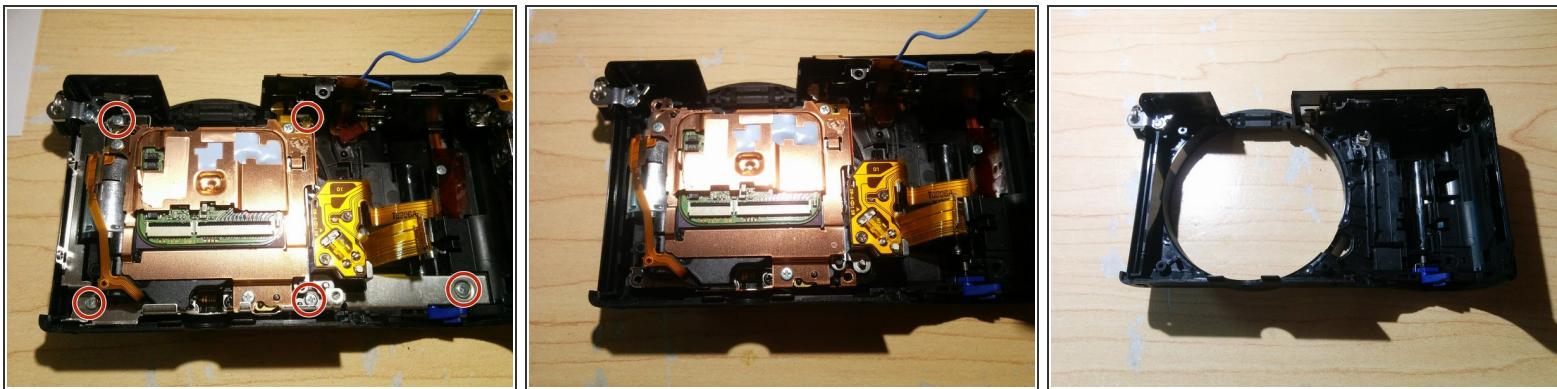
- Gently remove plastic body assembly. Pay close attention to the flex circuits around the body. Make a note which ones supposed to stay with the body frame and which ones stay with the front assembly.
- Plastic body frame is shown in the last picture. It is shown without battery door. You don't have to remove battery door!

Step 17 — Remove Image Sensor Flex Circuits



- Open latches first. Gently remove both flex circuits attached to the image sensor. Take a note which one goes where

Step 18 — Remove Image Sensor Assembly



- Remove 5 screws
- Remove Front Metal Frame
- Remove Image Sensor Assembly
- You can continue disassembly if you want to separate image sensor from the shutter. I have not gone that far but I am sure it should not be too difficult to figure out.
- Last picture shows front case of the camera. It does not include flex circuit. You should have flex circuit still attached to the front case!

i Note how camera belt clip is still attached to the front case of the camera. You don't have to detach it!

Step 19 — Assemble the camera



- Reverse previous steps to assemble the camera! Pray you did not forget anything otherwise your camera won't be working properly!
- I ripped one of the flex circuits while disassembling my camera. I got it replaced. I did not have this guide so I hope you won't make the same mistake that I did!
- Have fun! And good luck if you need it!