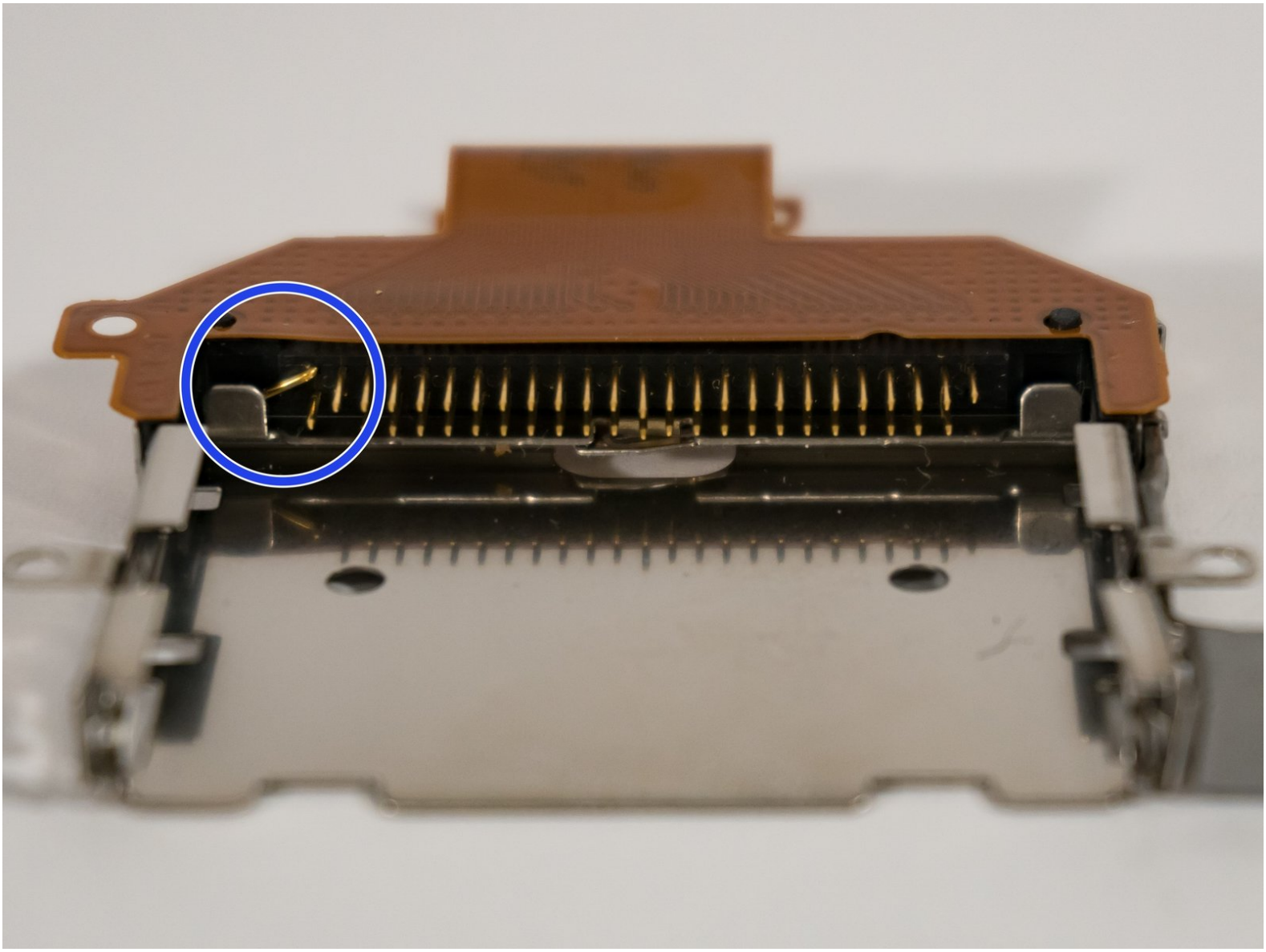
Canon EOS 20D CF card slot repair

Written By: Alec M



TOOLS:

- Essential Electronics Toolkit (1)
- Fingers (2)

Thumbs

I hope you at least have two fingers even if they aren't thumbs :D

- Phillips #0 Screwdriver (1)
- Soldering Iron (1)

PARTS:

- Dead solid core ethernet cable or thin multi stranded wire. (1)

Should be easy to find some of this.

Step 1 — Remove the eyepiece cap

- Pull up on both sides of the the eyepiece cap. It should come off with little pressure.

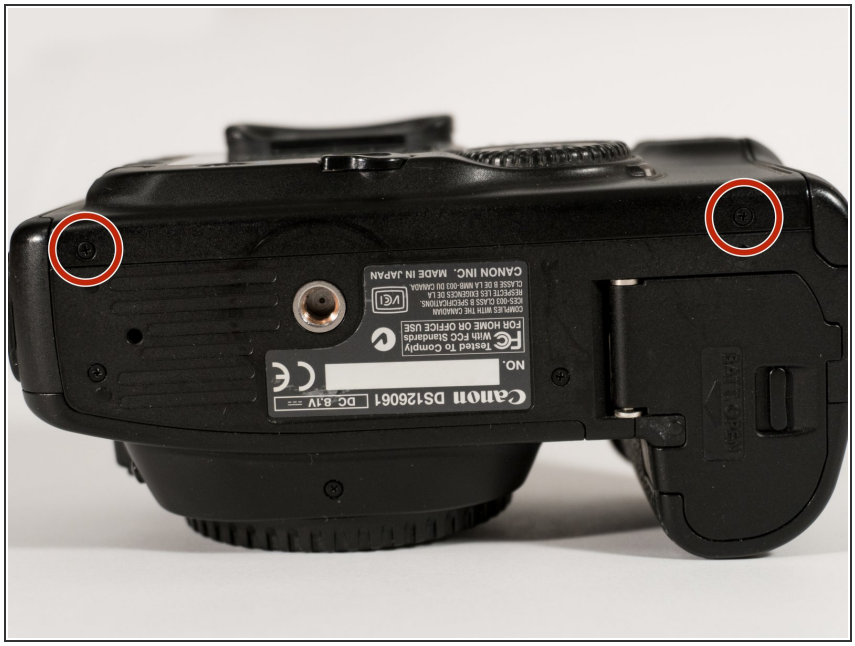
Step 2 — Remove screws from under the eyepiece cap

- Remove the two screws hidden under the viewfinder eyepiece cap.

Step 3 — Remove hidden screw and other visible screw

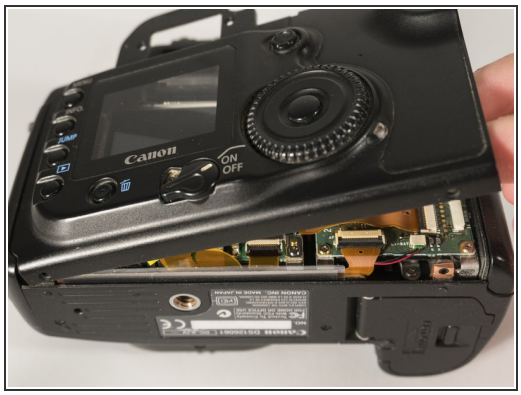
- Peel off the rubber grip on the back by grasping one of the corners and pulling it away from the camera body.
- Once removed, a hidden screw is revealed.
- Remove both screws from the rear of the camera.

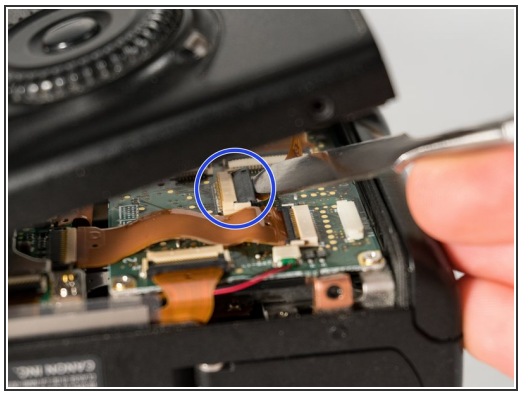
Step 4 — Remove bottom screws



- Remove the two indicated screws from the bottom of the camera.

Step 5 — Lift and remove the rear panel



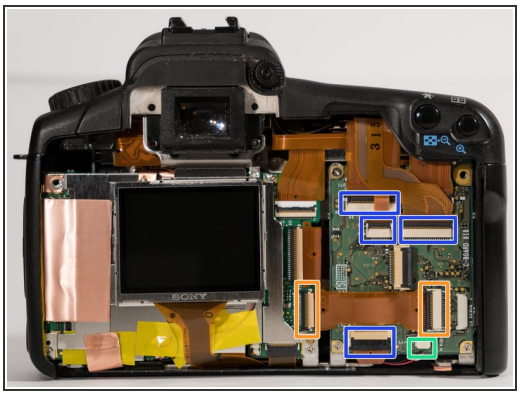
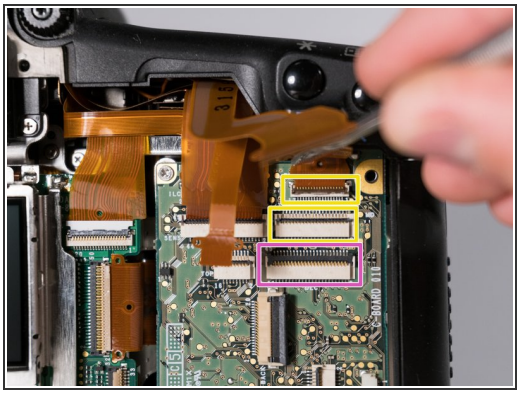
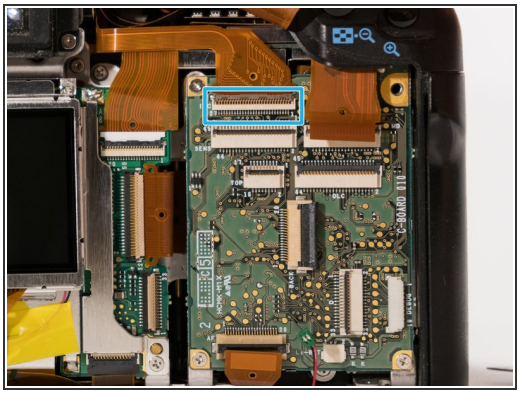



⚠ When lifting the panel, make sure not to lift it too high, since you'll run the risk of tearing the cable, or damaging the connector on the board.

- Flip the lock on the flex cable connector up with a spudger.
- The front panel should pop off, now that the cable has been disconnected.

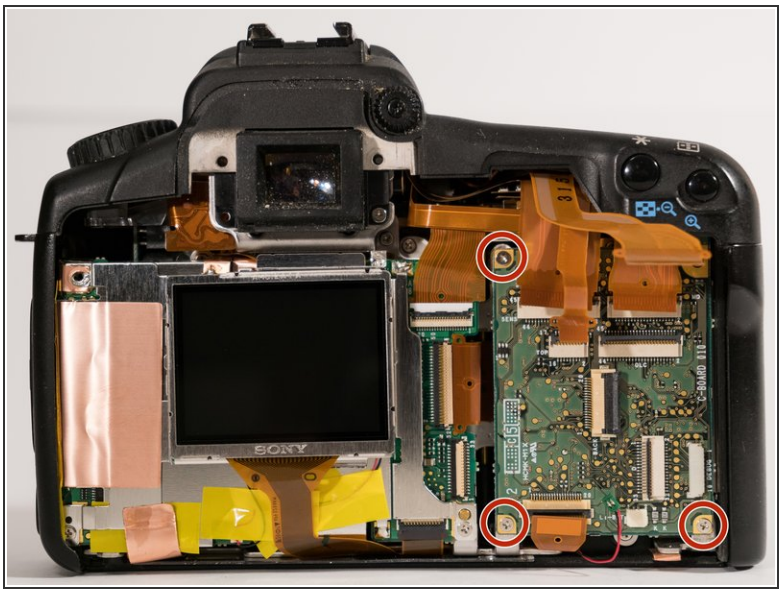
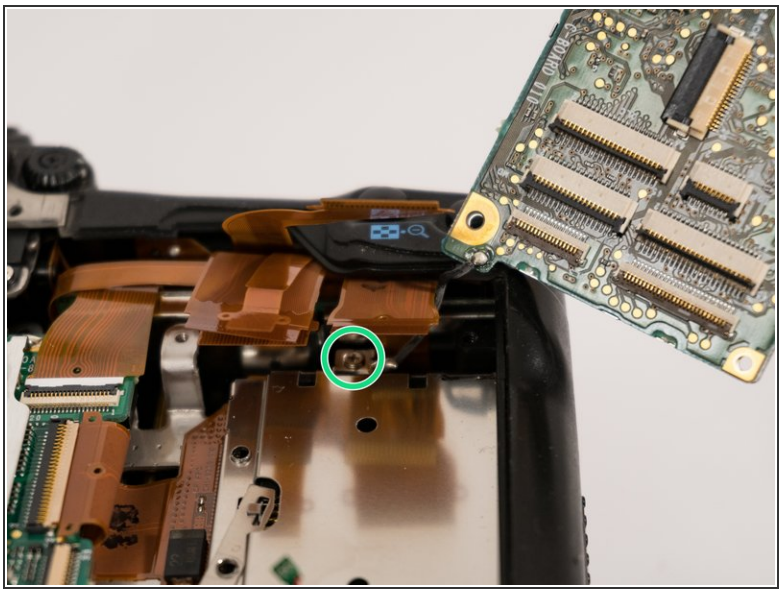
ⓘ When reassembling the device, make sure to insert the left side of the front panel first, since it has a small lip that needs to fit under the left part of the camera case.

Step 6 — Disconnect all the labeled cables

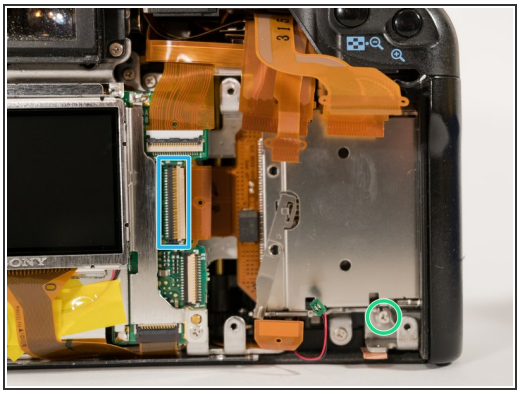
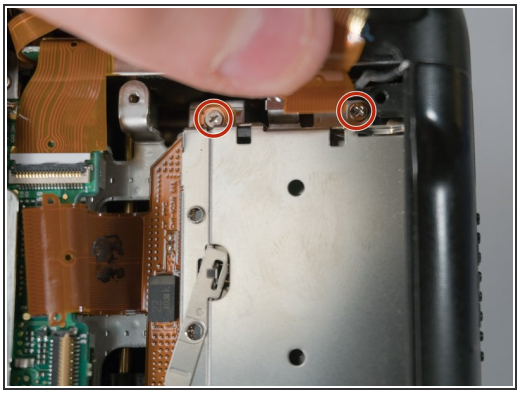
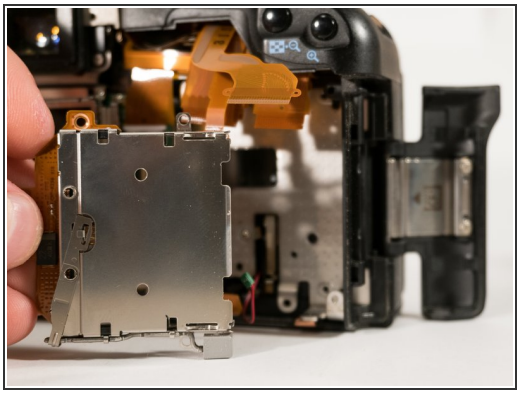
- Disconnect all the indicated connectors by opening their latches.
- Remove the flex cable that connects the logic board to the secondary control board.
- Pull the small green connector out of its socket. Be careful when removing it, as it is possible to tear the tiny wires running into the connector.
- Disconnect the two hidden connectors under the top connector indicated in pink.
- Disconnect the third hidden connector.

Step 7 — Remove the secondary control board

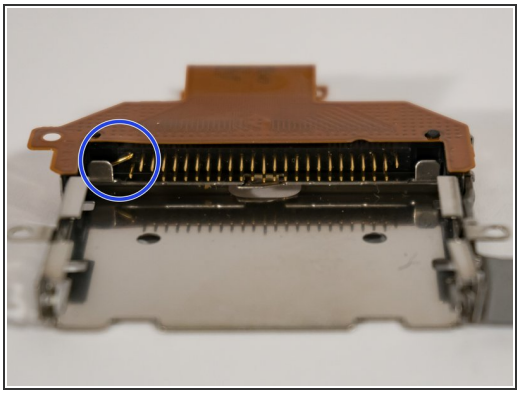
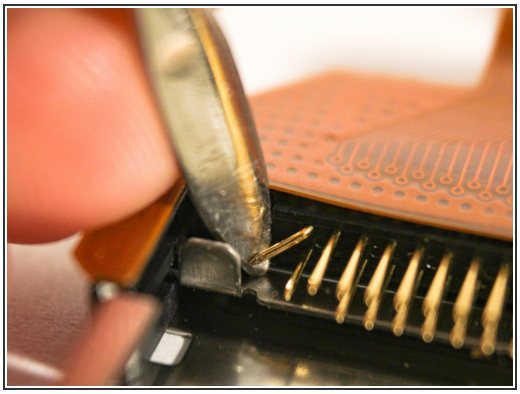
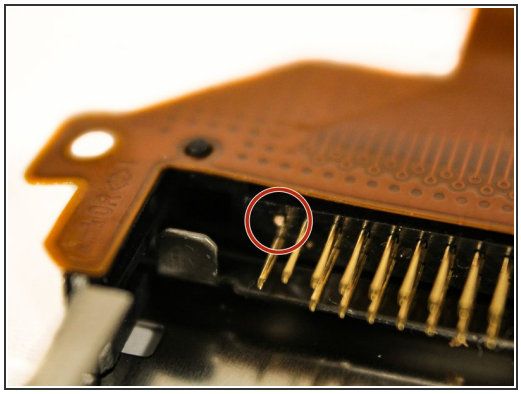
- Remove the three screws from the edges of the board.
- Flip the board up and out so that the ground connection can be unscrewed.

Step 8 — CF Card Slot

- Open the connector for the CF slot.
- Remove the screw that attaches the bottom of the CF slot.
- Remove the two last screws attaching the top of the CF slot.
- Remove the CF slot.

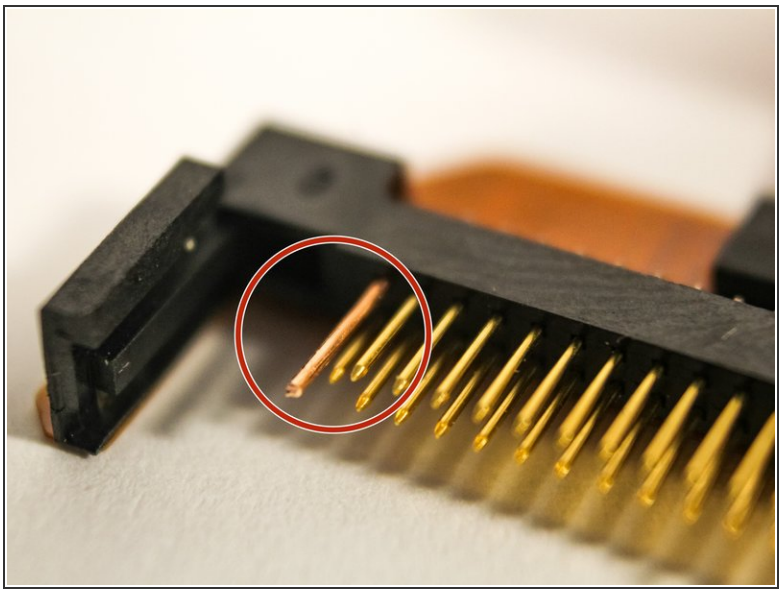
Step 9 — Attempt to rebend bent pins

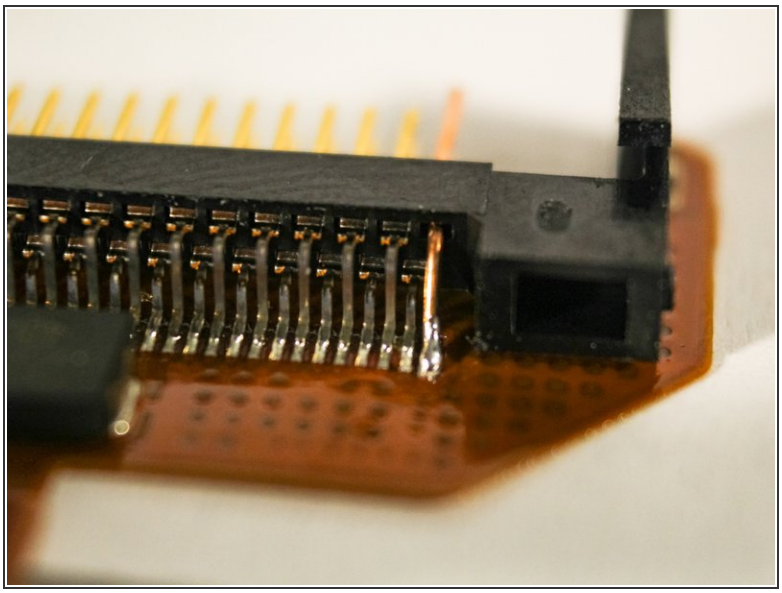




- This is one of several issues with this CF connector. This pin is severely bent.

⚠ When the pin is bent this badly, it's very likely that it will snap when you try to rebend it. There's no harm in attempting to carefully bend it back though.

Step 10 — Replace damaged pins



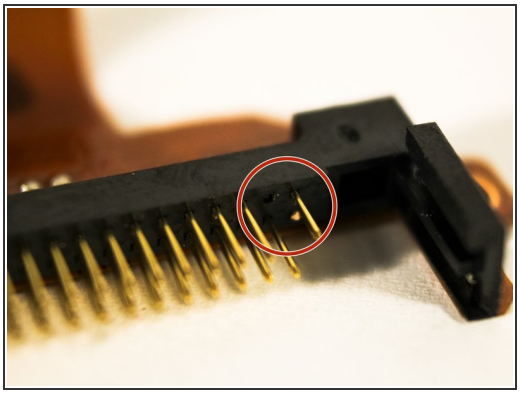
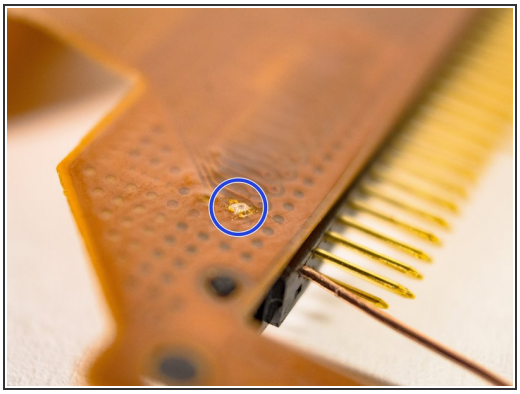


- I was able to relatively easily replace the pin that snapped with a section of solid-core wire from an ethernet cable.

The pin I replaced here is supposed to be longer than its neighbors. This is one of the extended pins on the connector.

Working on the next steps will be much easier if you remove the metal shield that is attached to the CF slot by clips. I forgot to include this in the guide photos.

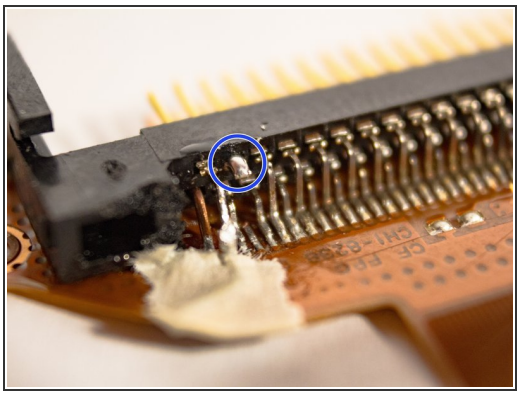
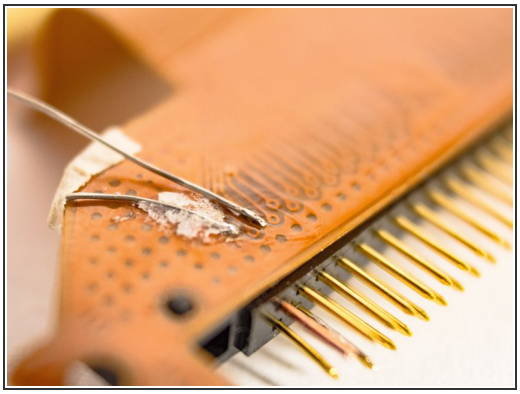
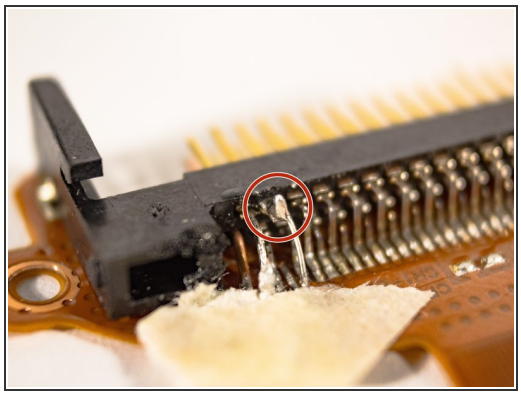
Step 11 — Fix damage from pins that got pushed in


- Some pins had gotten pushed in far enough that they ripped up traces, so it was necessary to reroute their connections from the bottom vias.
- To be able to solder to the vias, you have to scratch the solder mask off of them with a sharp tool like an Xacto knife.
- Then it can finally be soldered to with a high gauge wire. I took a section of larger stranded-core wire, cut it, and unwound it.

Taping the connector down to your work surface makes it easier to work on the small solder joints required here.

Step 12 — Extra pin fixing tips

- This is one of the cases in which I was able to reuse a pin that was broken internally but not externally, simply by pushing it back into place and running a wire from the piece left inside.

- When soldering to the vias, note that from the rear (the area where all the pin connections are soldered to), the two pin connections on the far right and far left are ground, and don't connect down to these vias.

- Make sure not to leave large lumps of protruding solder like the one here. I ended up having to slim it down, since it touched the metal housing of the connector when I put it back together.

- Hopefully when you reassemble your EOS 20D, you won't be getting the "Err CF" message anymore.

To reassemble your device, follow the disassembly instructions in reverse order.