Corsair Vengeance M65 Mouse Wheel Button Replacement

Replace a broken mouse wheel click button.

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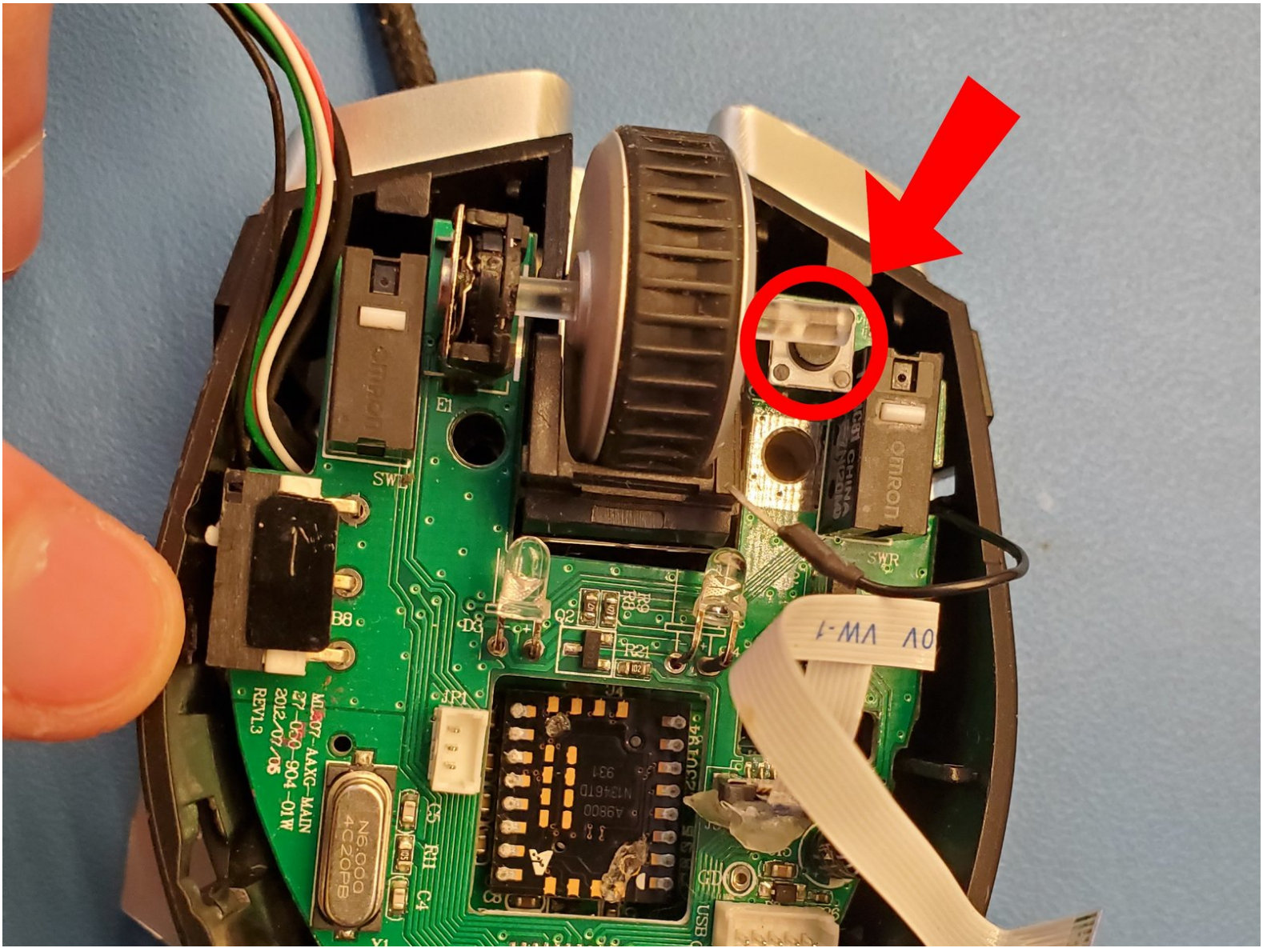


INTRODUCTION

My middle mouse button stopped working which can be very annoying especially in 3D cad software where rebinding requires relearning many commands.

A replacement button is only ~$0.65 + shipping from Digikey and one less thing prematurely ends up in the landfill. **Look for a button the same dimensions as the one I linked, but with a greater "operating force".**

You will see when you open this mouse up that every other button uses a much nicer Omron switch which explains why only the mouse wheel click button broke.

However, this is not an "easy" repair. It takes quite awhile to disassemble and reassemble this mouse.

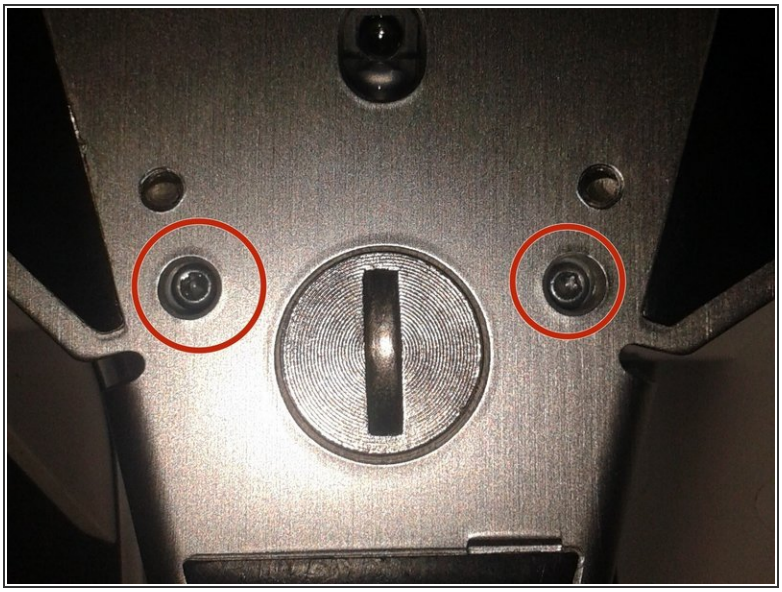
TOOLS:

- T6 Torx Screwdriver (1)
- Small Phillips Head Screwdriver (1)
- 6-in-1 Screwdriver (1)

PARTS:

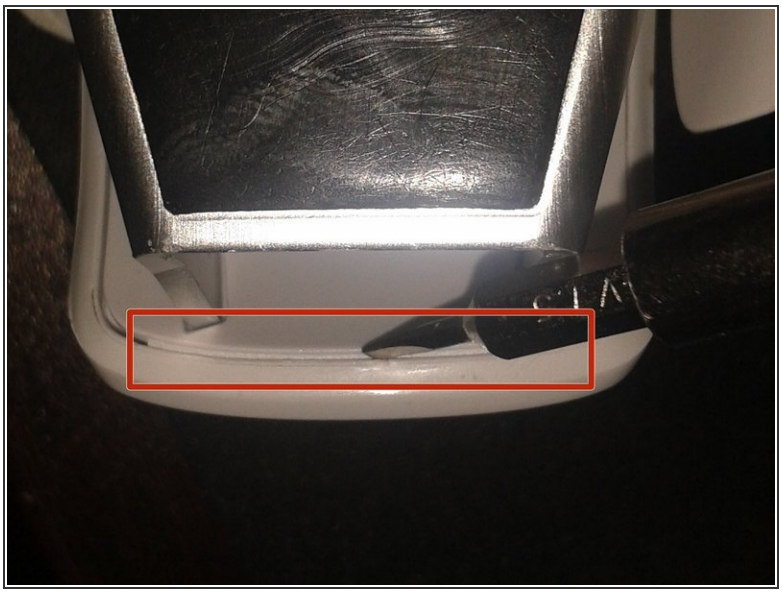
- Replacement Button (1)
  Tactile Switch
  Digi-Key -- EG4414-ND, https://www.digikey.com/en/products/detail/e-switch/TL1150AF070Q/1556582

Step 1 — Disassembling Corsair Vengeance M65 Mouse Body



- Let's begin!
- First, flip it over.
- Find two Torx screws. Use a T6 Torx driver to unscrew these. I used a small flat head screw driver to unscrew these because I did not have a T6 Torx driver.

Step 2

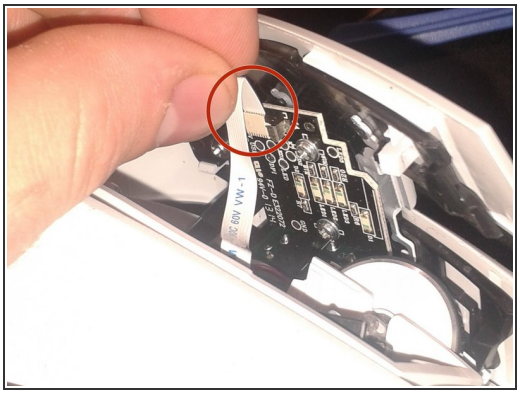
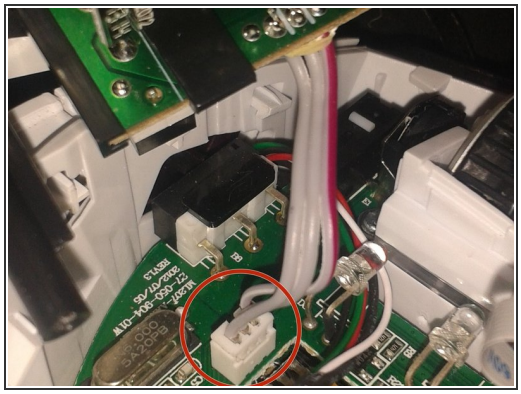
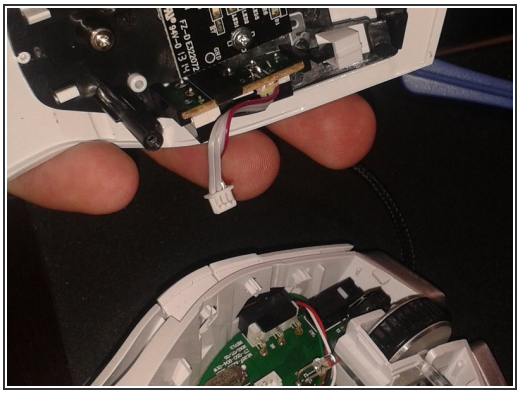


⚠ BE CAREFUL WITH FLAT-HEAD SCREWDRIVER! Alternatively open it bare handed.

⚠ DO NOT SEPARATE THE TWO HALVES TOO WIDE YET AS THERE ARE DELICATE RIBBON CABLES CONNECTING THE TWO HALVES!

- Push down where I am pointing out here. It should come apart fairly easily.
- To open it bare handed, hold M65 with USB cord running straight downwards and force top surface of M65 upwards with your palm then pull M65's rear edge upwardly with your "hooked" fingers of the same hand.

Step 3

- BE GENTLE!
- Wiggle the front of the mouse and gently pull the top half towards the back.

⚠ SLIGHTLY LIFT THE TOP HALF ABOUT 5mm!

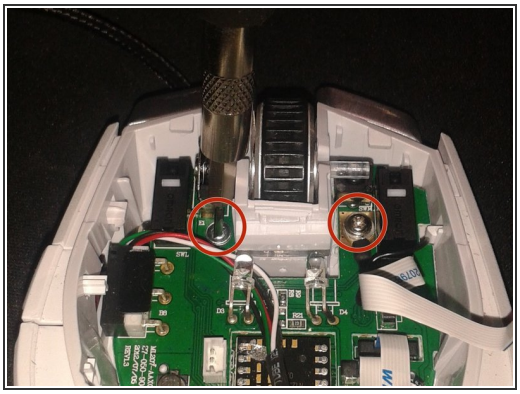
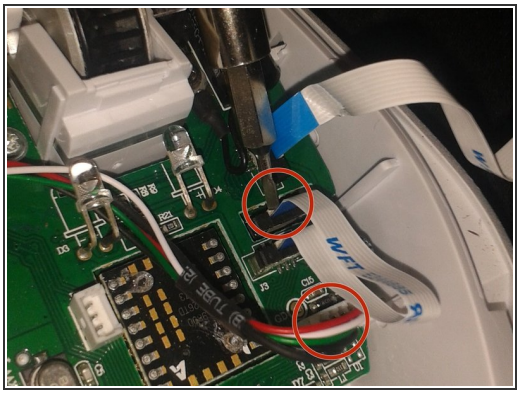
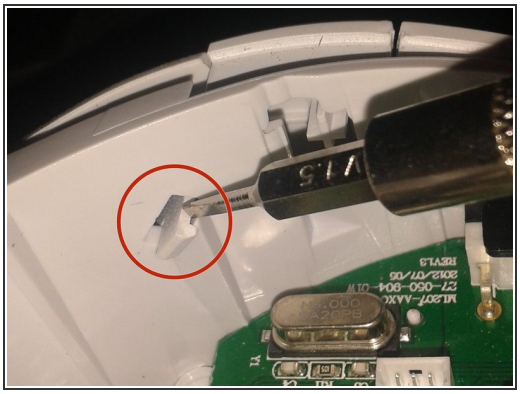
⚠ There is a ribbon cable and a power cable attached to the top and bottom.

⚠ SLOWLY! Wiggle the top ribbon cable out of its slot.

⚠ On the power cable, grip the plug itself and not the wires. Pull the power cable from the bottom.

- YAY! You got them apart!

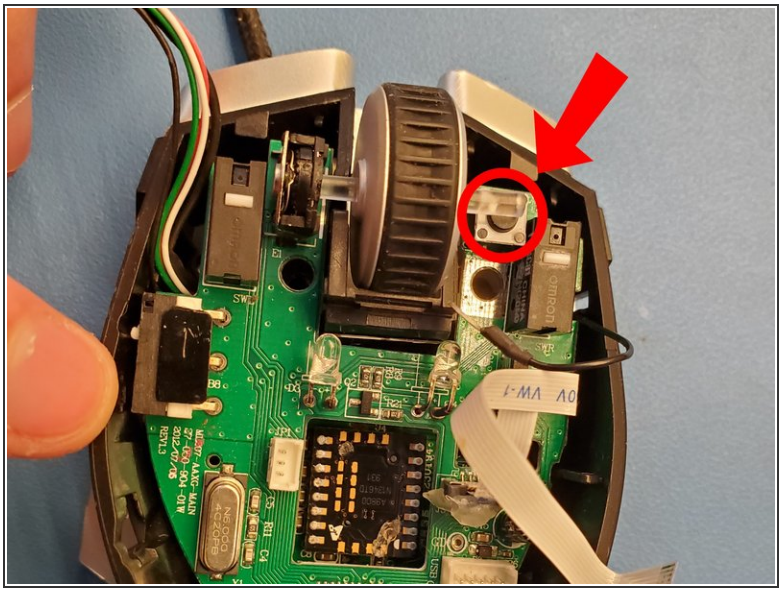
Step 4

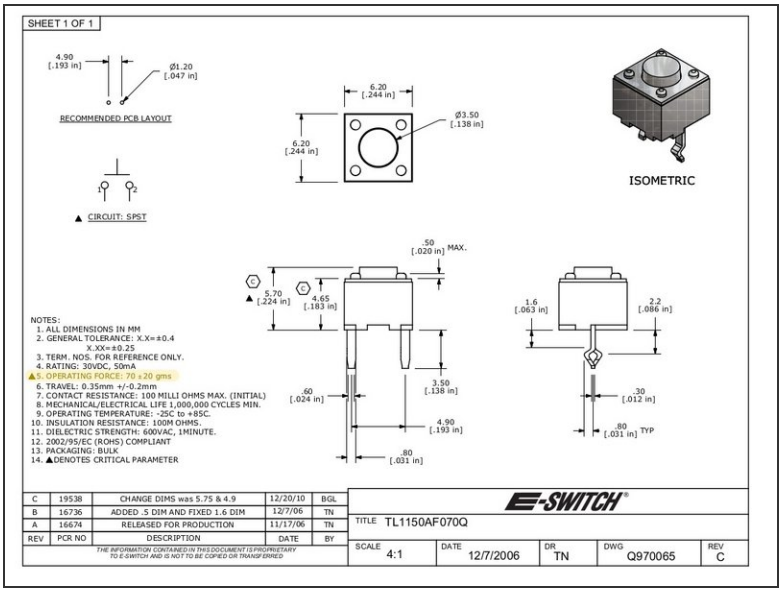




⚠ If you wish to go any further, please do so at your own risk. I have not gone further than this.

- There are two screws that hold the PCB in place. One is longer than the other. The SHORT one goes to where I am pointing. The long screw holds down a grounding wire. Move the wire out of the way as you take out the board.
- There is a ribbon cable that I am pointing at which you can pull out. There are some multi-colored wires that are plugged into the board. Wiggle it out. Move it to the side when you take the board out.
- Now lift the PCB out along with the scroll wheel. There should be some more screws which hold the metal to the plastic. Undo those if you want to.
- The sides come apart. You must take the mainboard out in order to take the sides off. There are two latches for the left side and four on the right side. The left side also has two screws securing it to the rest of the body.

Step 5 — required tools & initial teardown



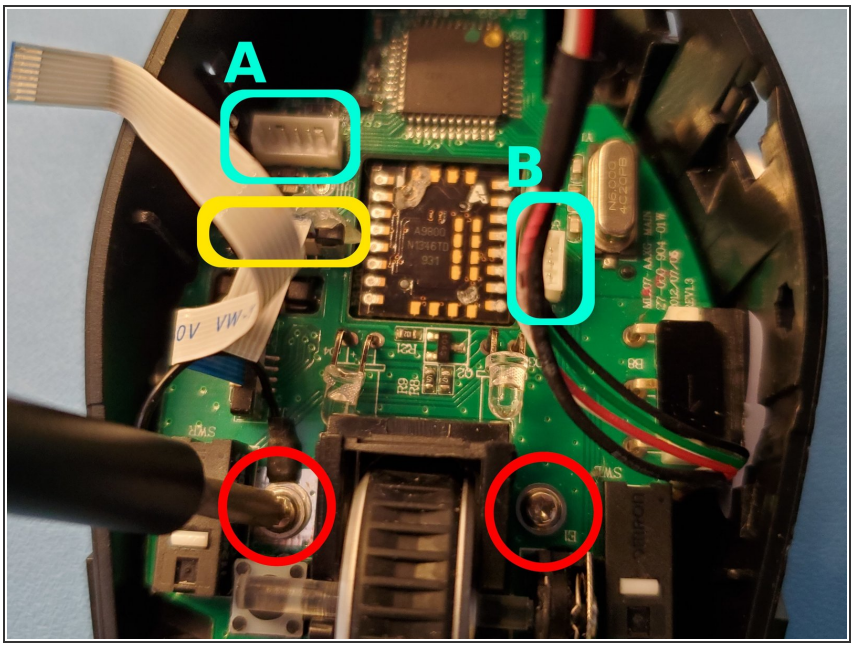


- Replacing this button requires soldering. I recommend a "needle-type" soldering iron head to push the pins of the broken button out of the PCB.
- See this guide for the initial teardown. I will pick up where Brett leaves off.
- You will need to purchase a replacement button (Digi-Key -- EG4414-ND). But before purchasing, tear the mouse down and confirm the button is broken and it is not another problem.

ⓘ The button I purchased fits and works, but is easy to accidentally press. Look for a btton of the same size, but with a higher operating force (highlighted on datasheet).

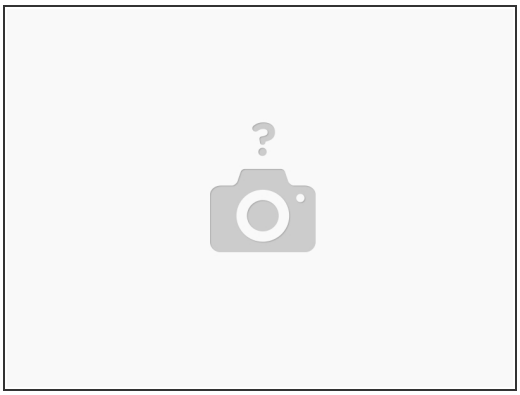
- Required tools:
  - multimeter (to confirm button malfunction)
  - soldering iron, solder, flux, wick, isopropyl
  - required screw driver heads

Step 6 — remove main PCB



- Cyan connectors: gently wiggle until wire assembly is free. **Do NOT pull from wires, grab plastic connector!**
- Yellow connector: **gently** lift black tab straight up (~2mm) then ribbon should slide out with no force.
  - You may have noticed some hot snot on this connector. I broke one side of the connector during disassembly. These pictures were taken during reassembly and I used hot glue to make sure the ribbon cable stays in place.
- Red: unscrew

Step 7 — Remove PCB from mouse body



- Requires some twisting and angling to slide the pcb out. Just be gentle and go slow.

Step 8 — verify button is broken.

⚠ Loud beep in video!

- Use a multimeter to check continuity of the switch in question. When the button is pressed the terminals should be connected (multimeter should show a very small resistance and audibly beep).

ⓘ I show here testing the switch after removing from PCB. **This is NOT required! You can test the switch before desoldering from PCB.**

ⓘ Video part A: Shows how a working switch should behave.

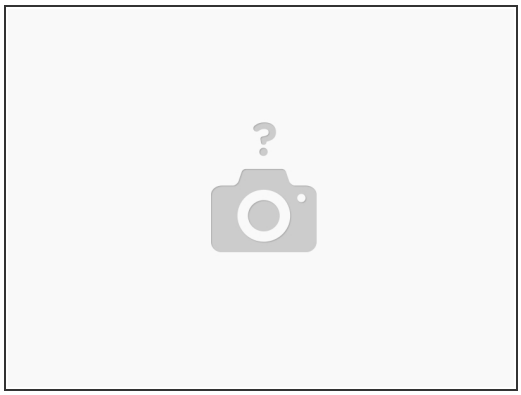
ⓘ Video part B: Shows that the broken switch does not respond to button.

Step 9 — desolder old & resolder new button.

ⓘ Direction of new switch does **NOT** matter.

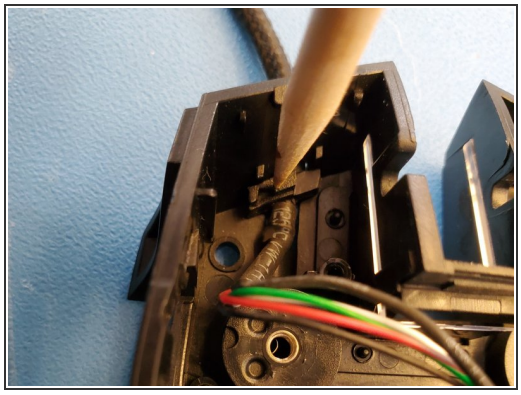
- Materials required:
  - solder wire
  - flux
  - solder wick
  - iron with pointy tip

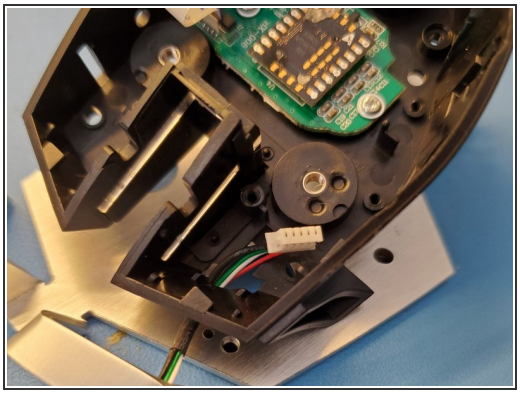
Step 10 — Reassemble or continue for deep clean

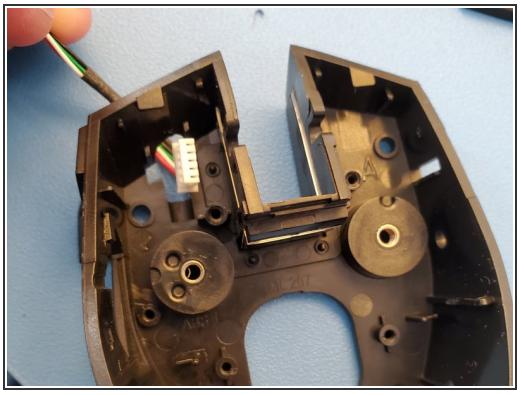


- The button is now replaced! You can reassemble the mouse. I went ahead and disassembled completely before deep cleaning the mouse.

Step 11 — remove usb cord from mouse body

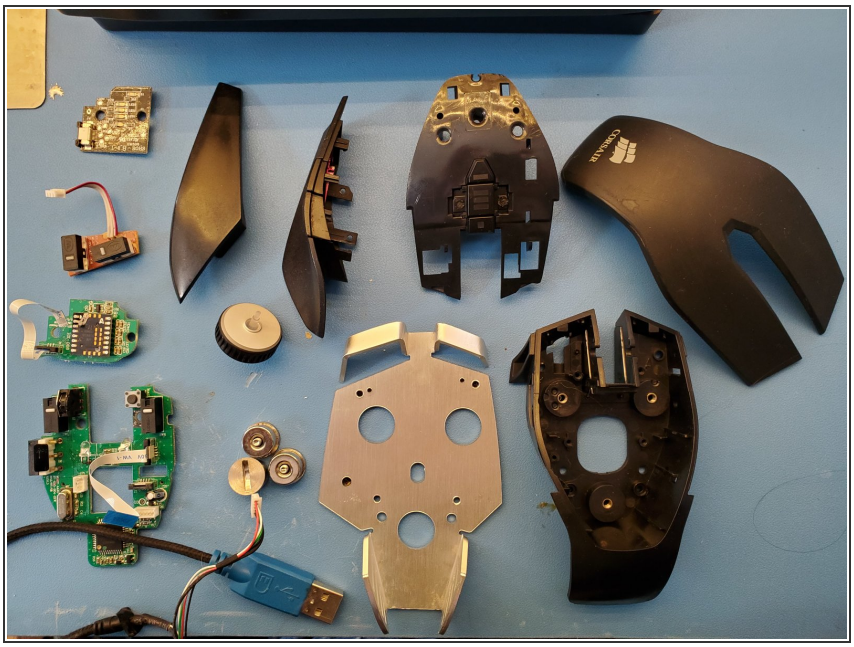






- hold the mouse in one hand and use your index finger to push down on the rubber connector (shown)

Step 12 — complete disassembly



- all the parts -- complete disassembly
- probably time to deep clean the mouse if you have used it long enough to break the button. I soaked all the non-electrical components and fasteners in soapy water before wiping with a soft cloth, rinsing, and drying.

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