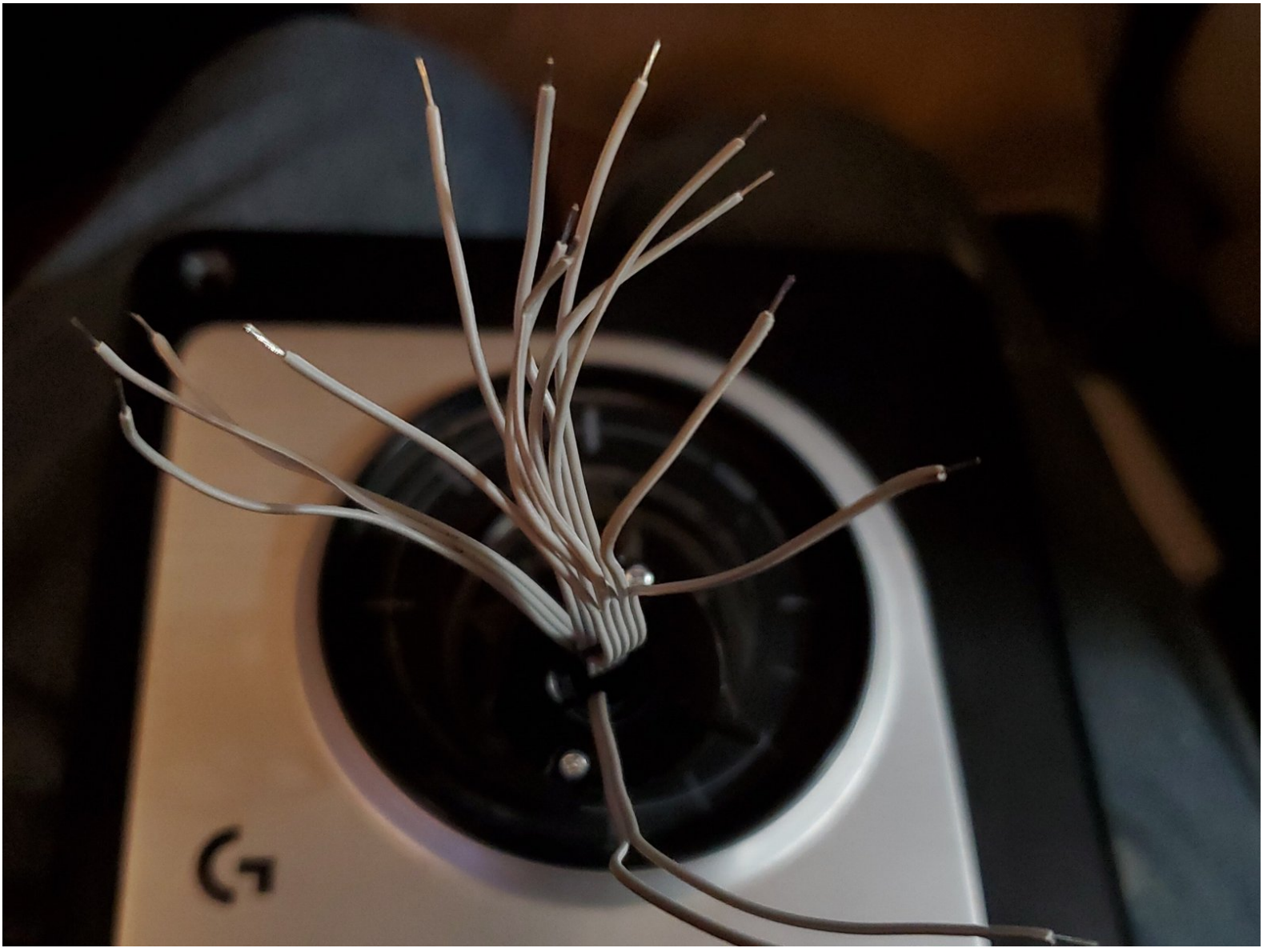
Saitek/logitech X52 Pro/not pro Wiring Replacement

Many issues with the joystick can be traced to...

Written By: Curtis Nixon



INTRODUCTION

Many issues with the joystick can be traced to the wires breaking between the base and the shaft on the x52(not pro, but i'm sure the same problem exists with it as well)
I've repaired them so many times, that the replacement wires that i've used, are a little to large,and are starting to bind in the shaft. So, instead of having to go in, one more freaking time, I decided to remove the problem. By replacing all the wires and adding some hot glue in the base for strain relief. And lengthening the wires about half an inch.
also found this guide, posting here for completeness.
https://imgur.com/gallery/XSJVW

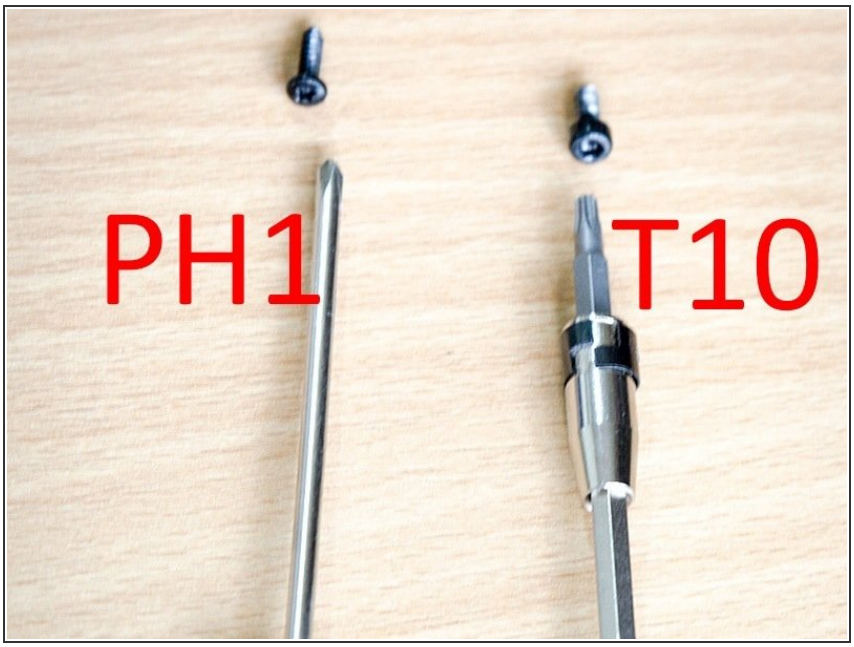
TOOLS:

- Phillips #1 Screwdriver (1)
- TR10 Torx Security Screwdriver (1)
- Soldering Workstation (1)
- Tweezers (1)
- Lead-Free Solder (1)
- Desoldering Pump (1)
- Wire Stripper (1)
- Flux Pen 10ml No Clean (1)
- flux remover (1)
- Flush Cutter (1)
- Hot Glue Gun (1)

PARTS:

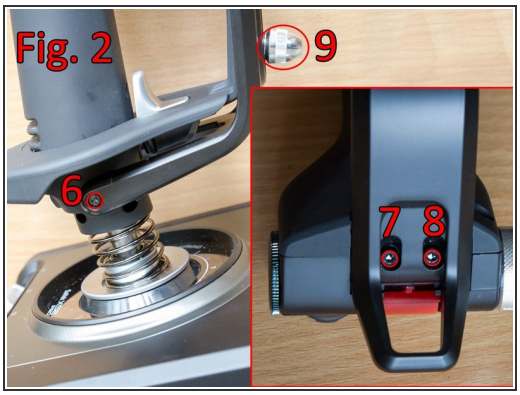
- ide ribbon cable (1)
- Gaffer Tape or Heat Shrink Tube (1)
- Hot Glue Stick (1)

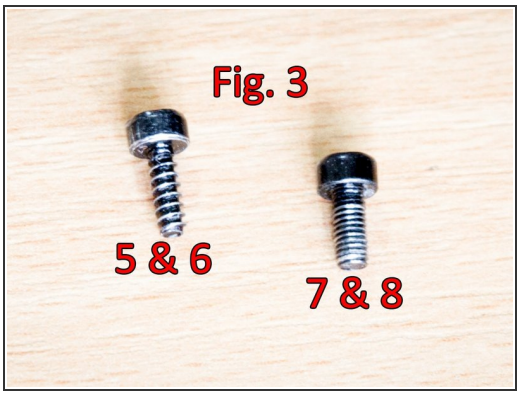
Step 1 — Get your tools



- Patience :)
- You need 2 small screw drives with a Phillips (cross) PH1 head and Torx (star) T10 head.
- A list of screw drive heads can be hound here http://en.wikipedia.org/wiki/List_of_scr...

Step 2 — Open the Joystick - Unscrewing





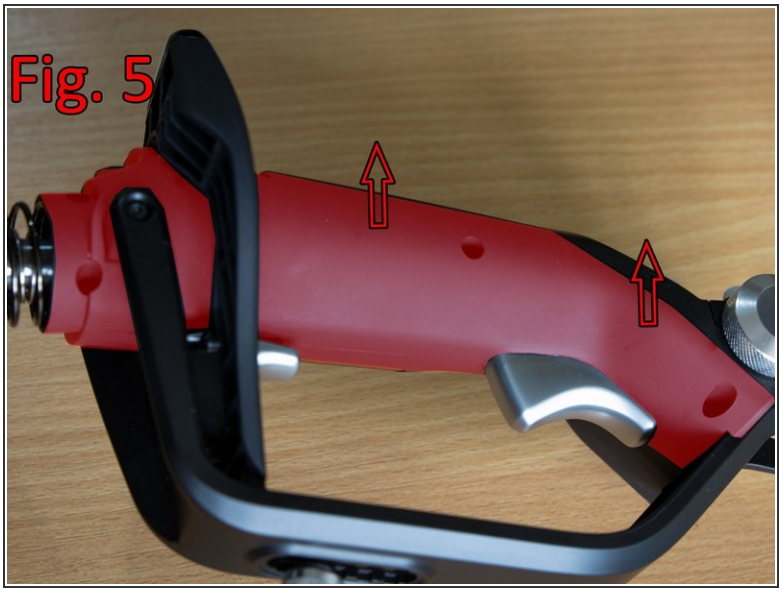
Please take a moment and note how your joystick is assembled and all the parts that can be dettached. I recommend taking a few photos before dismantling it.

- With the Phillips screwdrive unscrew the #1 to #4 screws in Fig. 1.
- Using the Torx T10 head, unscrew the #5 (Fig. 1), #6, #7 and #8 screws (Fig. 2)

Screws 5 & 6 have a larger thread pace than 7 & 8, although the heads are the same. So please take care when you screw them back on (Fig. 3).

- Using your hand, unscrew #9 (Fig. 2). Please note that you cannot completely remove this screw, but you don't need to do this anyway.

Step 3 — Open the Joystick - Removing the bracket and the cover



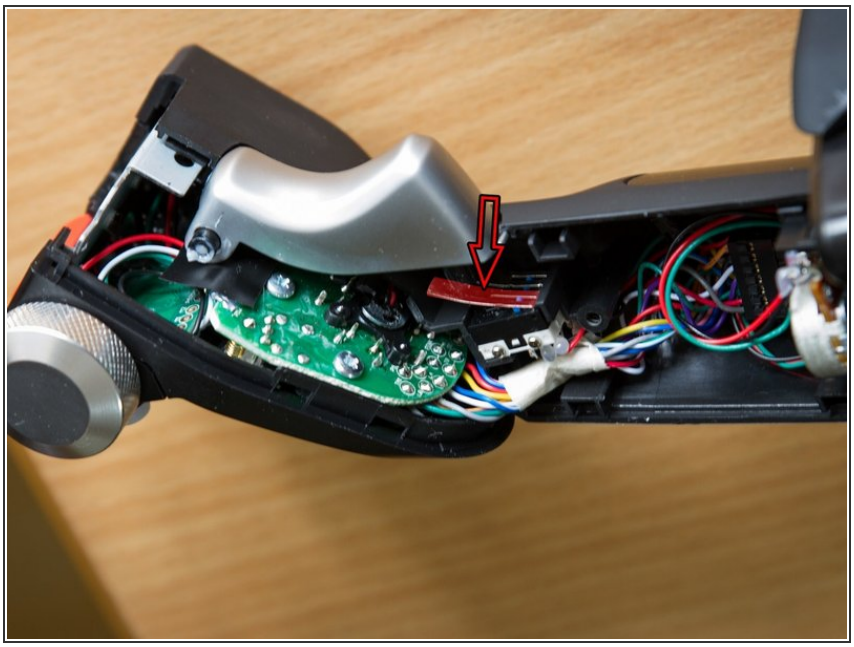
- Carefully remove the plastic bracket and the support holding the "Pinkie trigger" by pushing it towards the trigger (Fig. 4).

⚠ **DO NOT** force its removal, or you can break it.

⚠ Be careful not to break the Pinkie trigger wire!

- Remove the stick cover that will expose the contacts and wiring (Fig. 5)

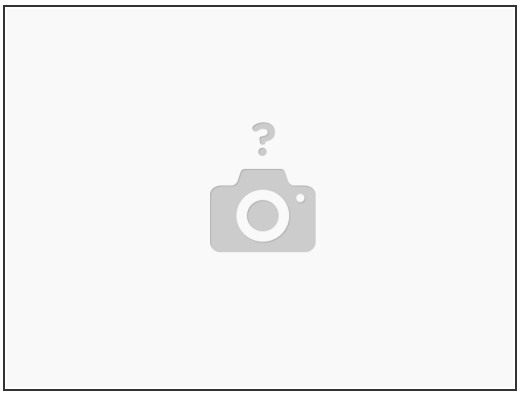
Step 4 — Fixing it



- Note the small metal plate.
- Bend it just a little from the middle so that pushing the trigger actually pushes the small **blue** switch inside the stick.
- Test the trigger before putting back the plastic cover

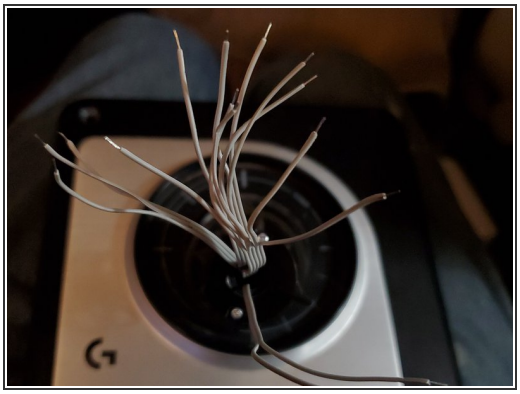
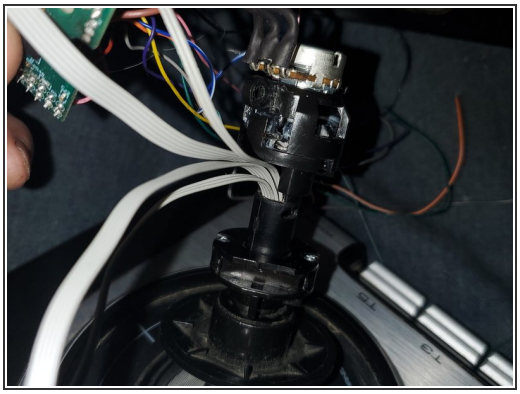
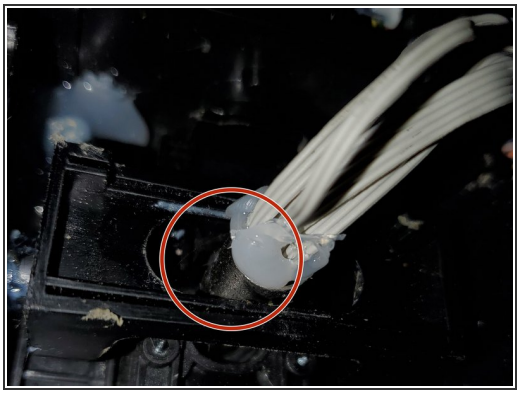
Remember when screwing the screws that 5&6 go to the bottom sides and 7&8 go at the top.

Step 5



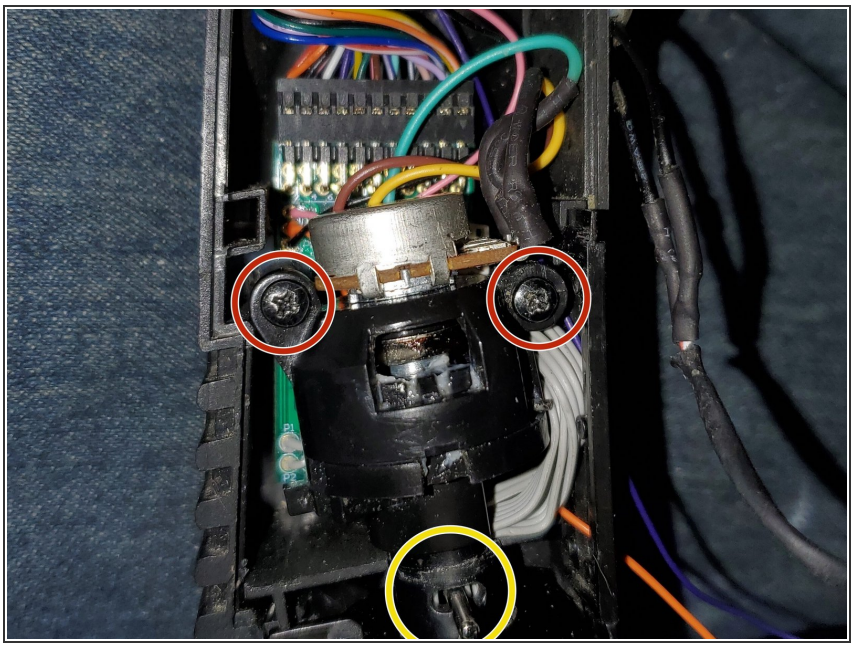
- Note: Inside the trigger there is two screws which can be used instead of either extend or retract the pin that presses the metal plate. Try adjusting this first.

Step 6 — Saitek/logitech X52 Pro/not pro Wiring Replacement

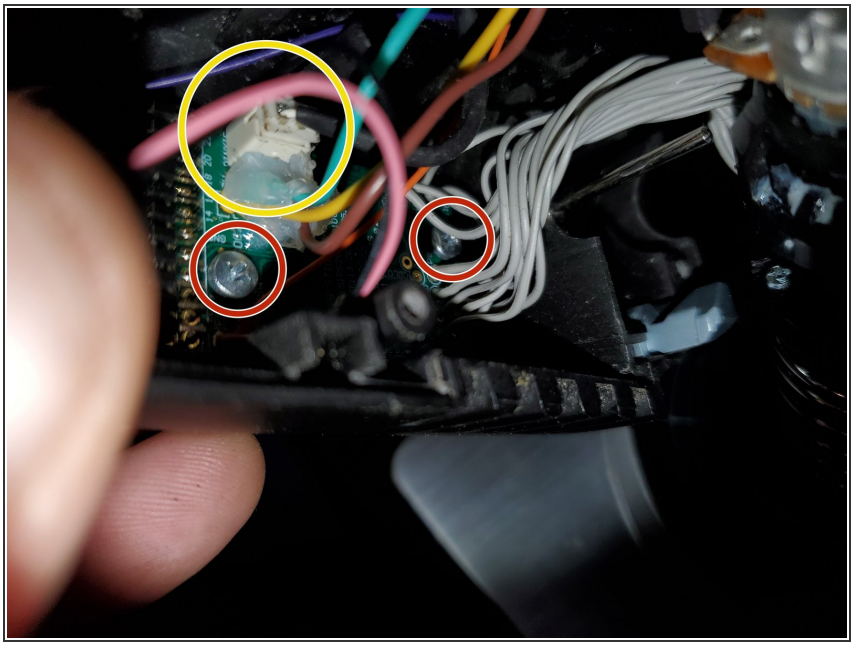
- Grabbed an old IDE cable, and harvested the wire. kind of a pain to thread the wire through. In the end, I seperated 2 x 5 wire ribbon, 1x2 wire, and 1x3 wire. There are 2 posts in the shaft. The upper one likes to come out, but don't let it.(Edit, seperate all your wires if you're using ide ribbon. had to redo everything. because i didn't)
- This metal shaft(circled), keeps on causing my wires to break.(also, logitech is being stingy on wire...) sick of soldering them back together, and the replacements I used where a bit thick, now can't find the broken wire, so replacing the whole thing.(wasn't a broken wire, but a loose contact in the plug but oh well. needed to be done)

Step 7



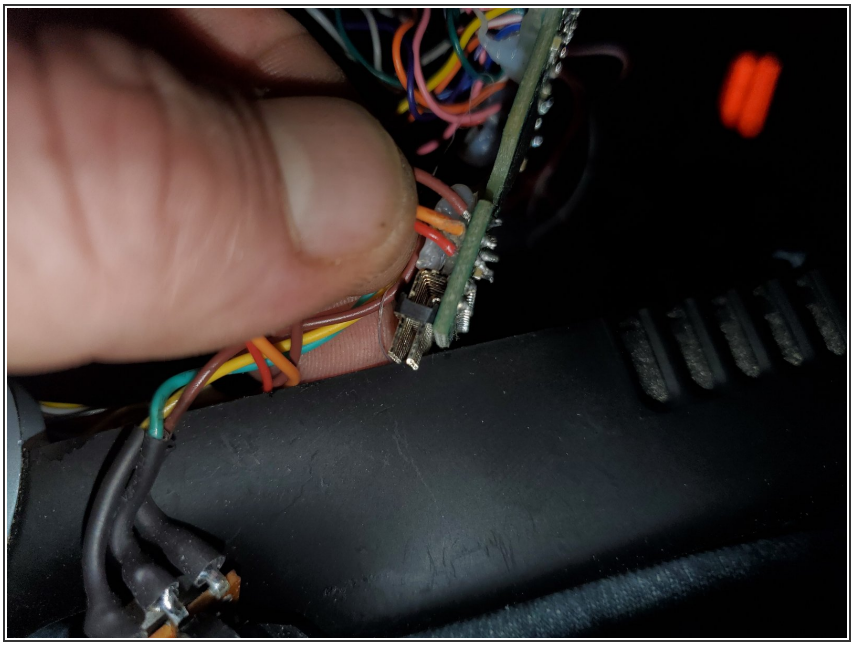
- once you've done the disassembly guide, remove these 2 screws.(thin screws) With a little twist, you can removed the joystick handle from the base. The roll pot just slides off once you've detached the stick.
- Metal pin(in yellow) goes through the slot. you have to align the floating part below the shaft, twisted a little bit, and hold the spring down at the same time. This is probably the hardest part of the reassembly. you can practice without the roll pot installed, but roll pot must be installed for final assembly.

Step 8



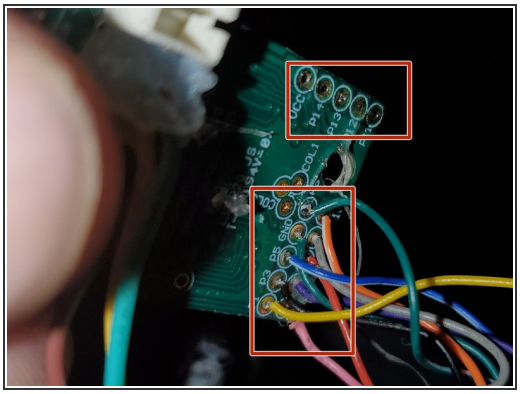
- remove these 2 screws, and the pcb will come out.
- disconnect pinkie button.(in yellow)

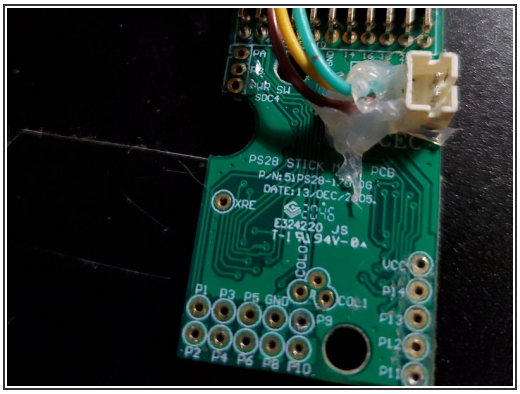
Step 9

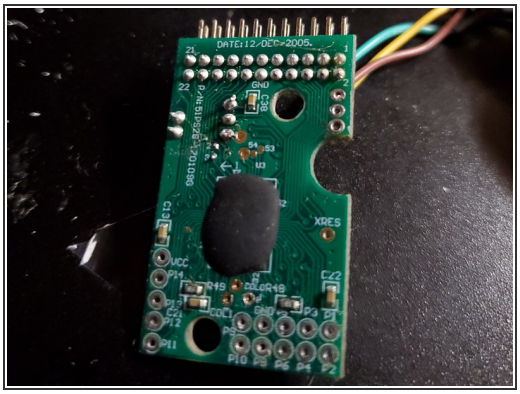


- trigger switch wires(desoldering to make this easier)

Step 10

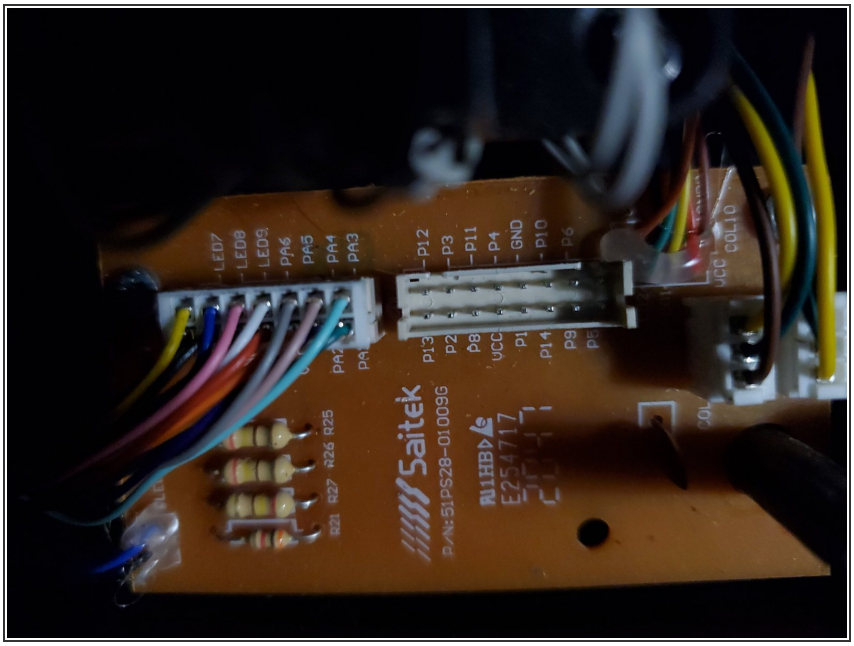






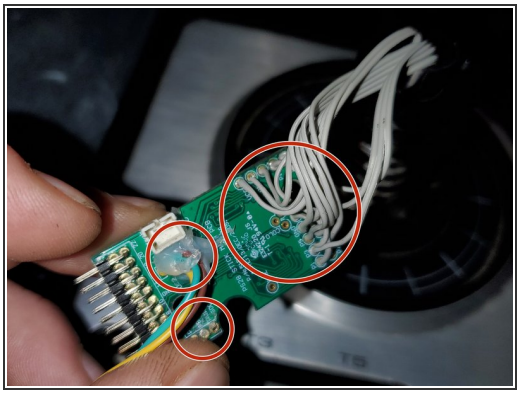
- the wires to desolder. will finish later and upload results, but this should help anyone looking for these pics. I couldn't find any.

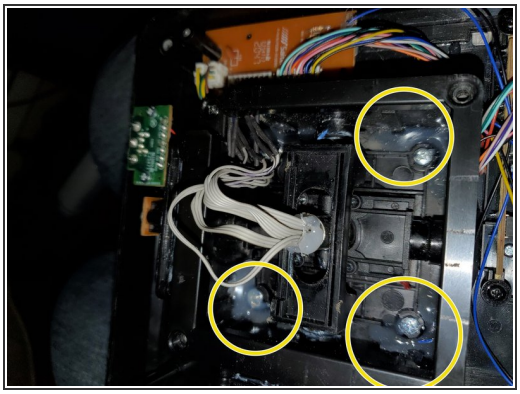
Step 11

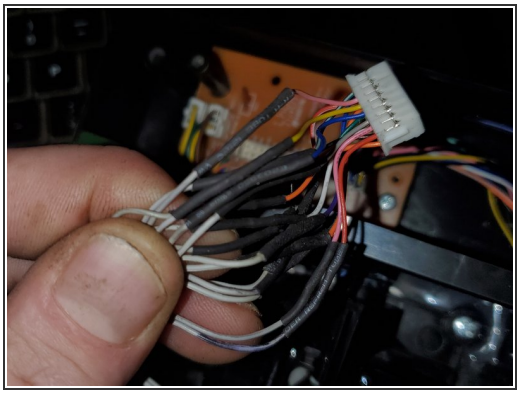


- pcb pinouts p5 on base pcb is actually on the other row, same position.

Step 12

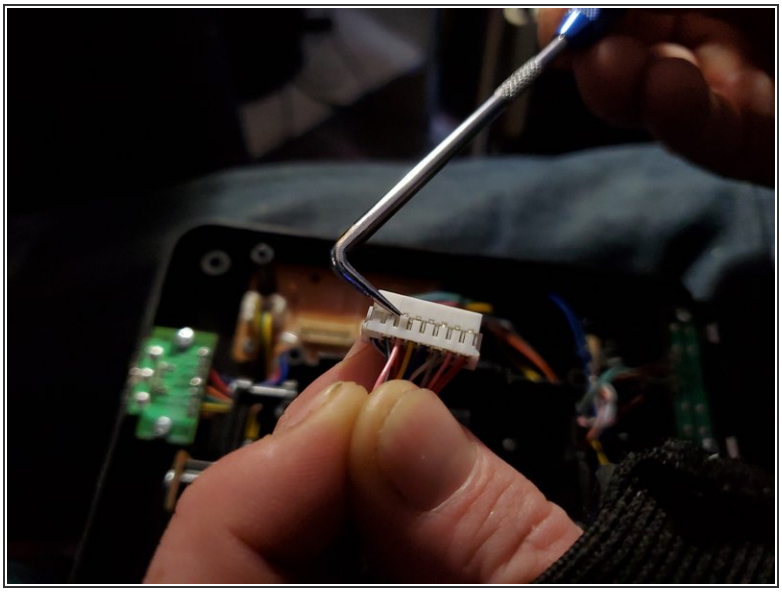


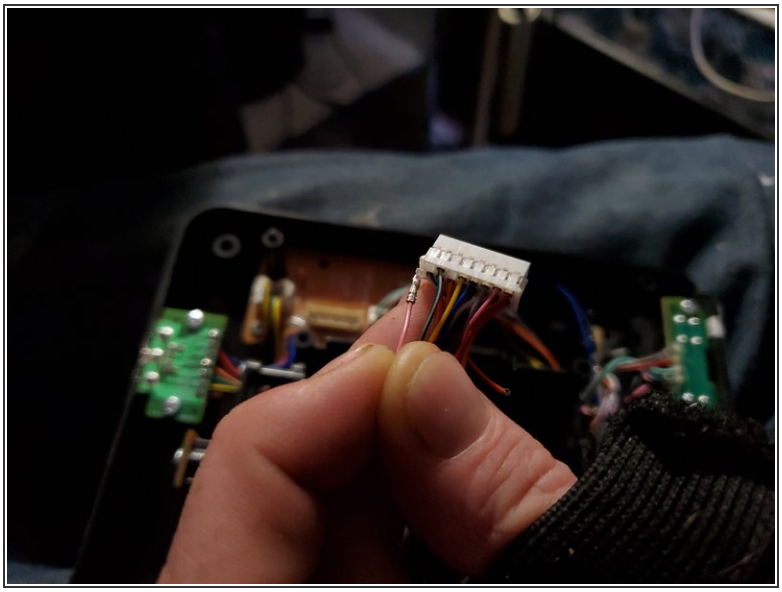




- finished. side note, the female end was actually loose, so had to remove from white plug and squeeze the contacts back together.(used a dental pick to lift the tab that holds the contact in place.
- hot glue is very useful here, but not absolutely necessary. But I highly recommend for the shaft in the base as seen here.also doesn't hurt to hot glue the pcb wires as well(circled)
- hot glue seen in base, is a previous repair.(circled yellow)

Step 13





- You'll need to have decent eyesight for this.(or magnification) Get a dental pick or a needle, or something with a sharp edge(a knife does work as well) lift up the tab that holds the contact in place, and pull the wire out.
- The contact will have 2 sides that have become loose on the pin, so squeeze them together. I used my fingernails, but you can also use tweezers
- This was my actual problem, THIS TIME, and it's the first time this happened on this stick for me. 99% or the time, it's been a broken wire. My problem was the ground wire contact.

**THIS GUIDE ASSUMES YOU KNOW HOW TO SOLDER. Through hole and joining wires.

If you don’t, youtube can help, and I suggest you practice on things you don’t care about first.

