

I followed the 1UpHack which is available at :

http://arcadecontrols.com/Mirrors/mirror/www.mameworld.net/tigerheli/encoder/dual_strike/1up_hack/projects-dualstrike.html

First I gathered together all the things I needed (Check list on following page). You can interchange these with part you have laying around. For example I chose to use connector strips to reconnect my wires together, some people might choose to crimp them together. I also used a "helping hands" to hold the circuit board when working on it, but this is optional.



1 x Star Wars Yoke



1 x Dual Strike Sidewinder Controller (check that it works first!)



1 x Pair of wire cutters



1 x Soldering Iron



1 x Roll of Solder



1 x Roll of De-Soldering Wire (Braid)



A set of small Screw drivers (Both Flat Head and Cross Head)



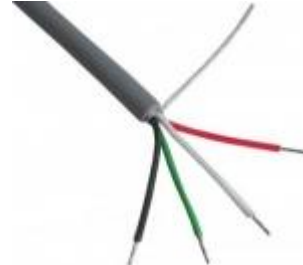
1 Small sharp knife or a Stanley knife



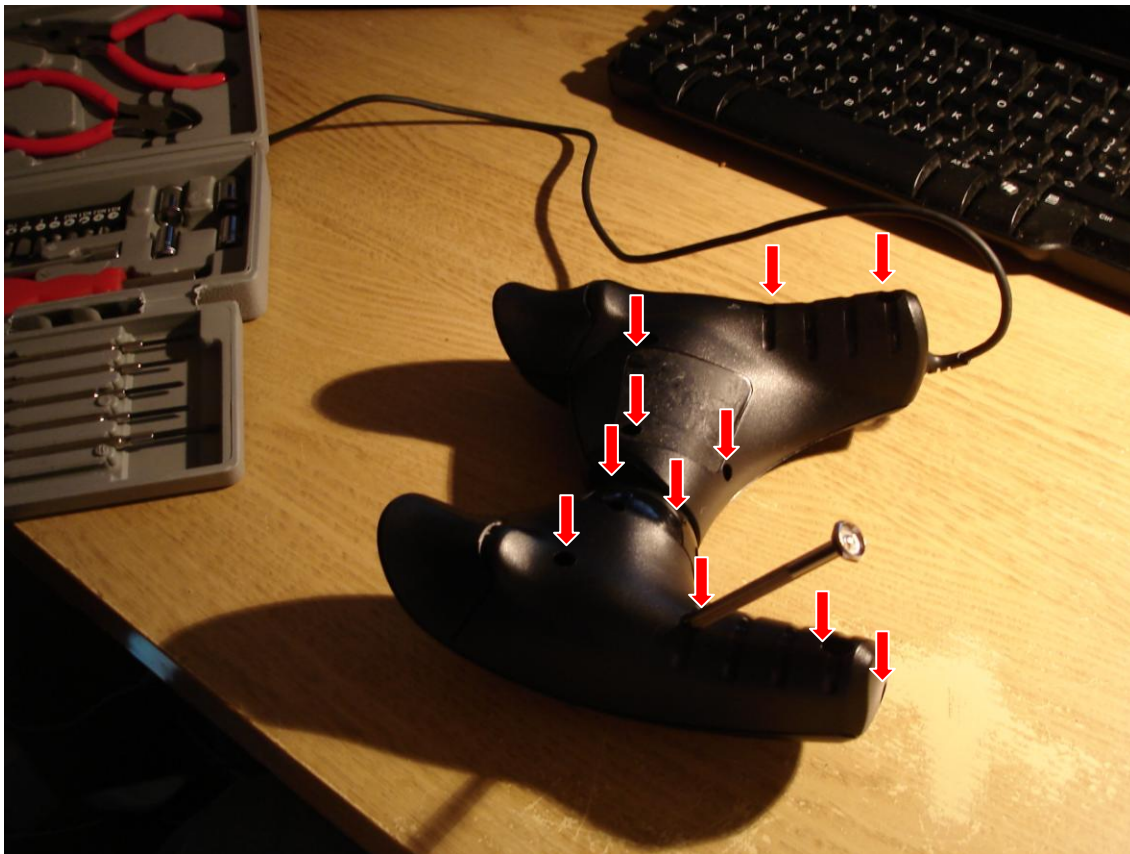
Several connector strips also known as terminal blocks



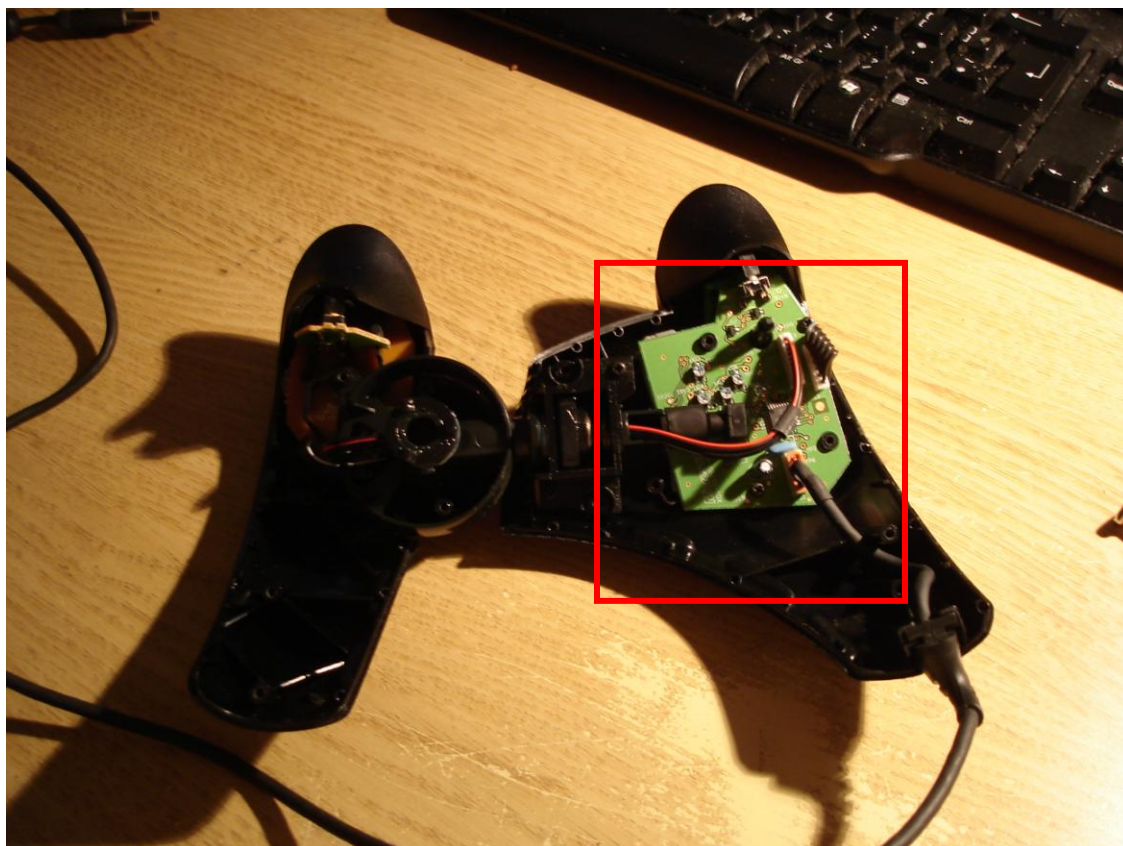
Several lengths of electrical wire



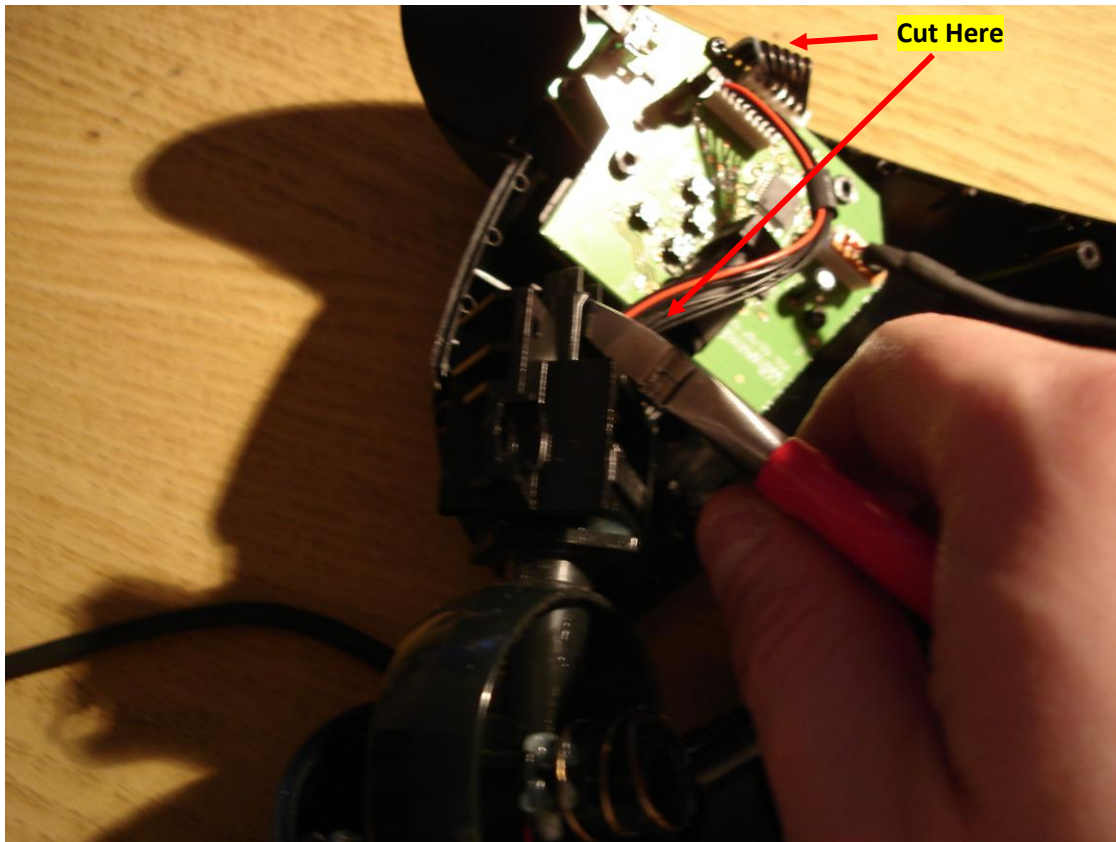
Ok, so the first thing I did was open up the Dual Strike controller. There are 11 screws in total.



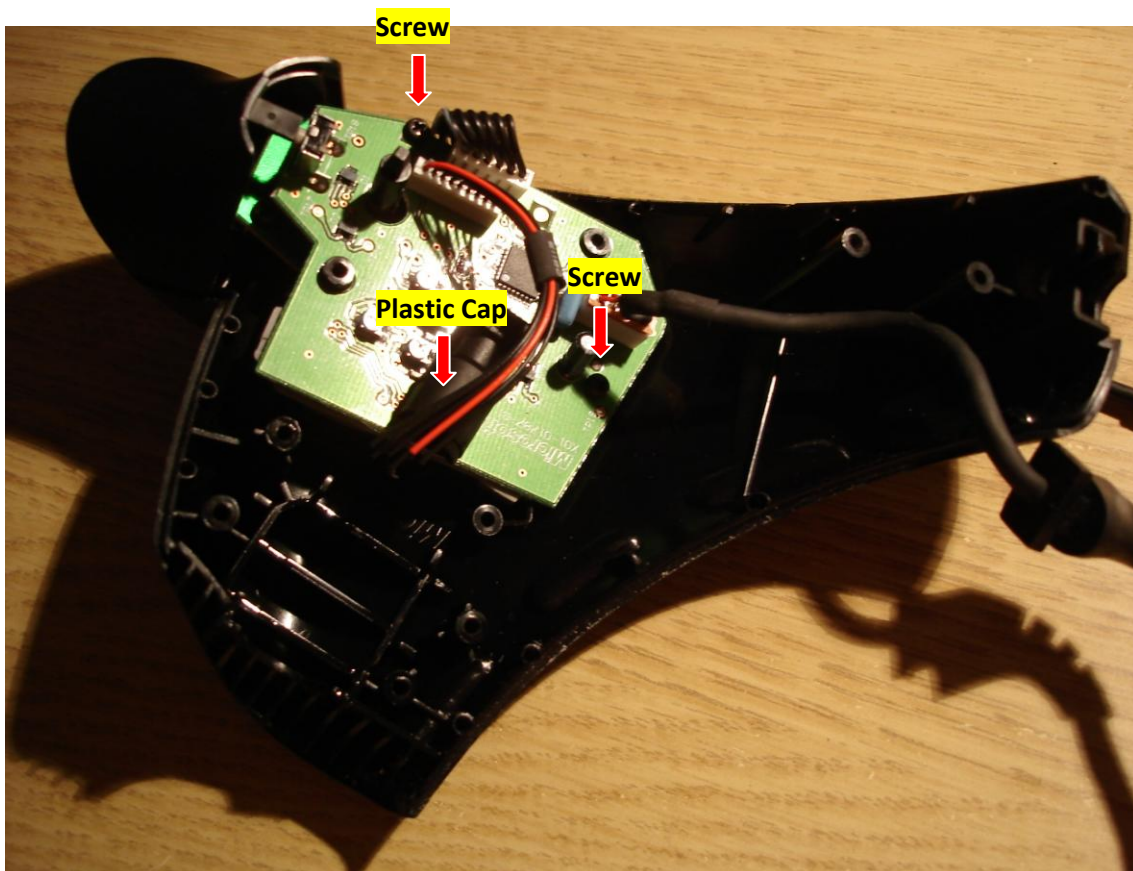
Don't forget the ones that are under the sticker! Now with a little persuasion the two covers should come off revealing the bits we want.



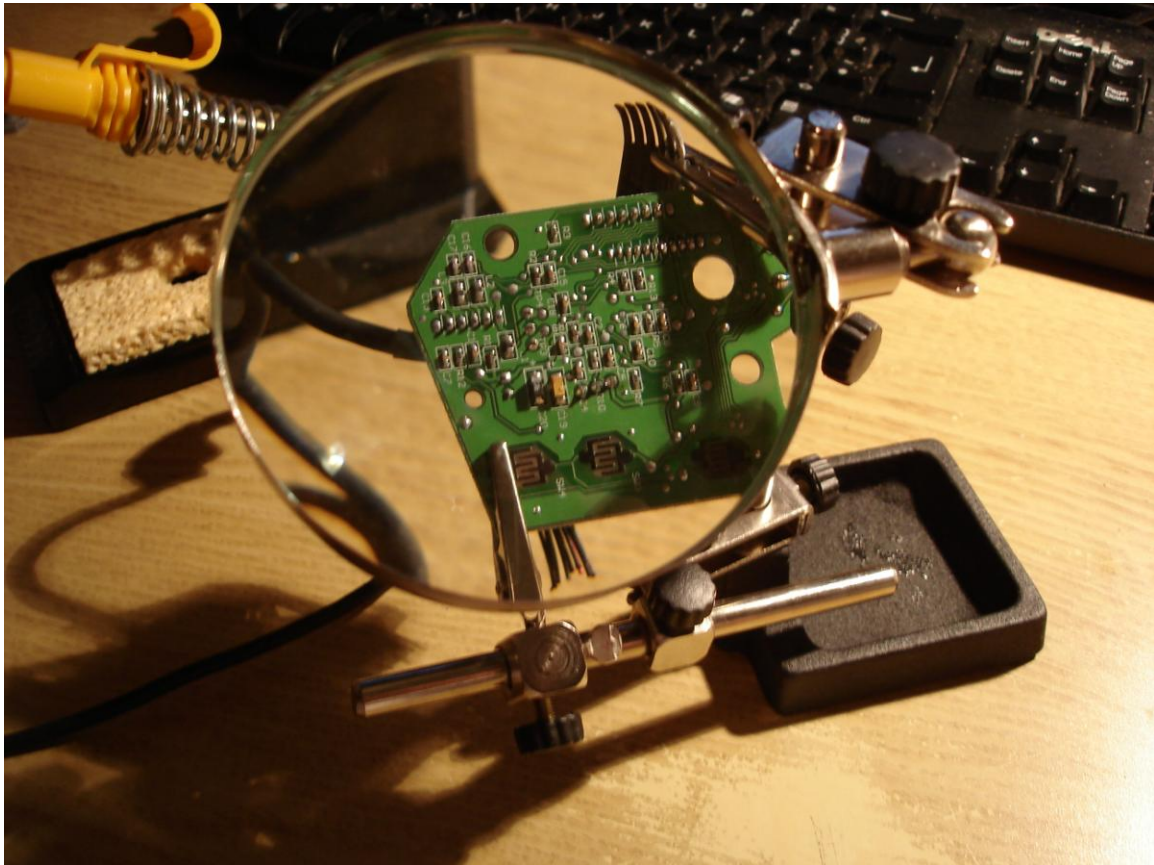
I took my cutters and cut as black and red wires, leaving as much length as possible. I also cut the wires at the top of the board.



Next I removed the circuit board from the control casing. To do this I unscrewed the two retaining screws and took the little pit of plastic off the pot.

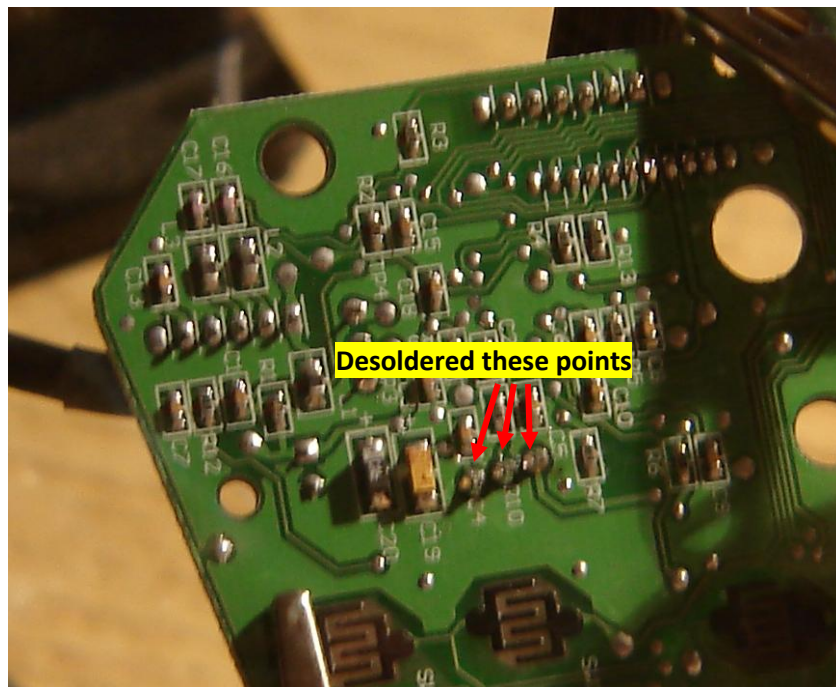


Now we have the circuit board out I placed it my helping hands to make work a little easier. I have the back facing me here.

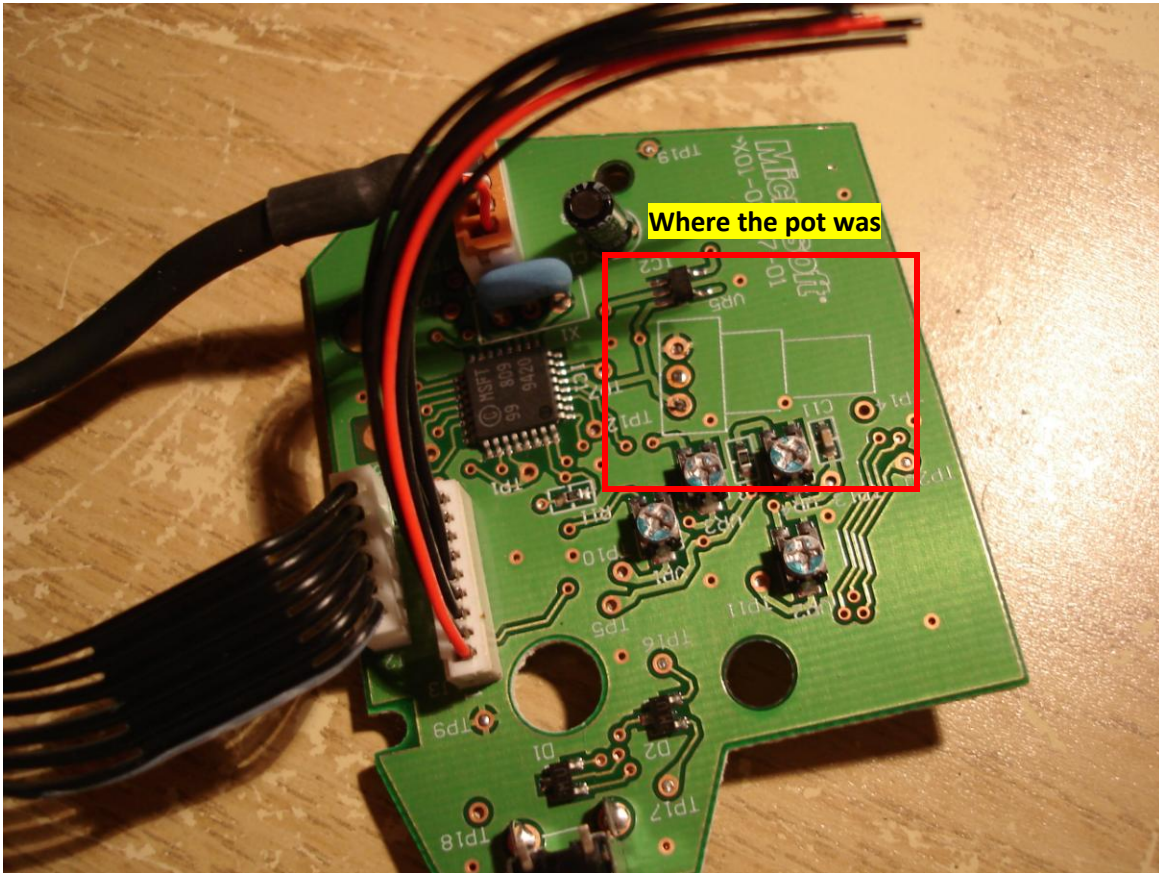


Now the hardest part! We need to remove the pot from the circuit board. The pot is the black plastic part which has a little shaft that you can turn. Locate it and work out where it is connected on the back of the board. I then used some desoldering braid and a soldering iron to remove the solder which connected the pot to the board. This takes some time. This youtube video might help...

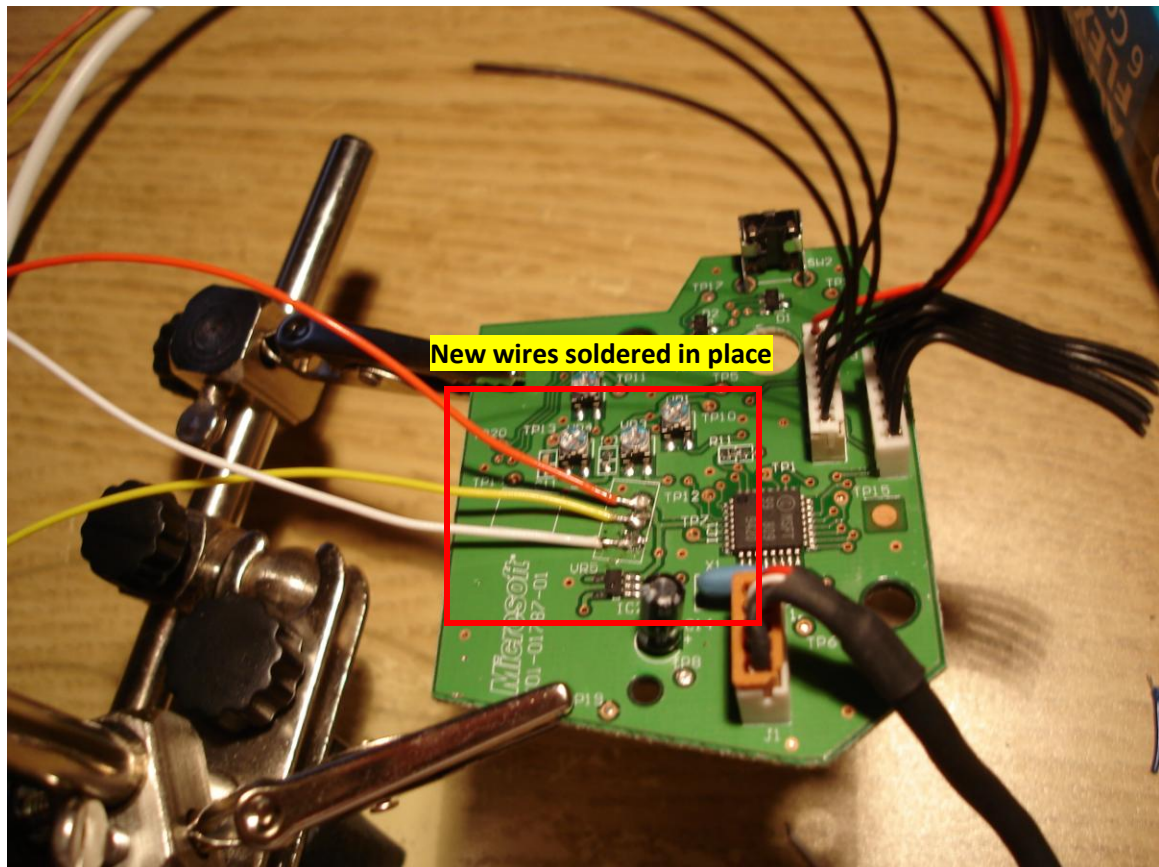
http://www.youtube.com/watch?v=r_O5AejTE&NR=1



After I desoldered the back I gave the pot a gentle wiggle until it broke free.



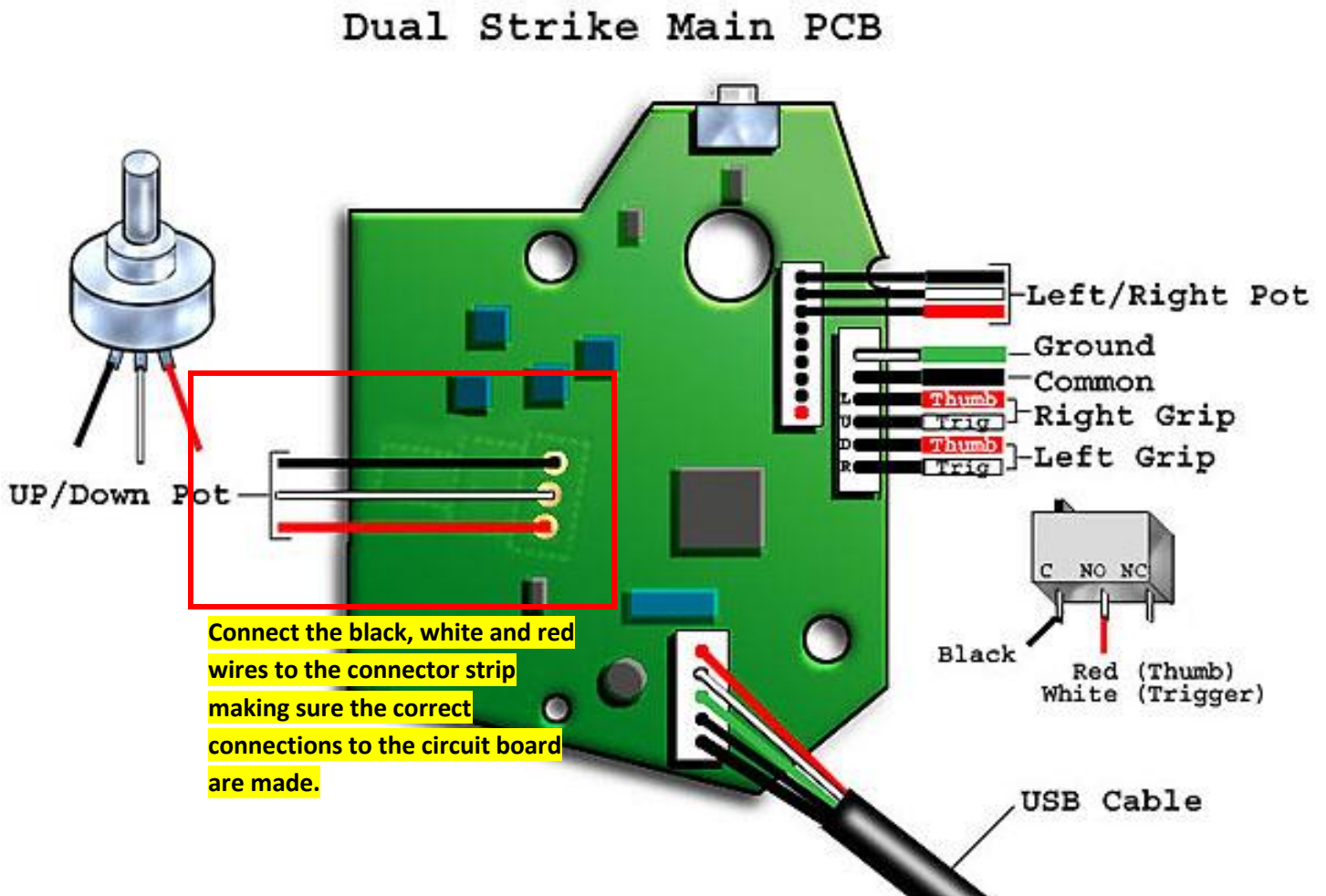
Next I soldered 3 new wires onto where the pot was previously on the front of the circuit board.



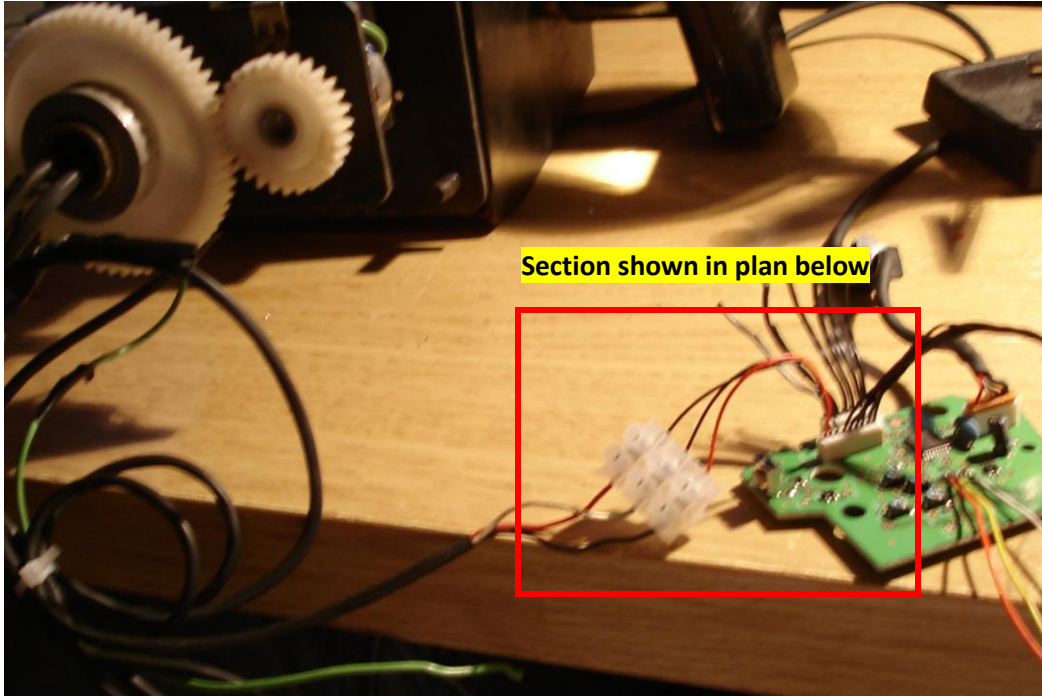
I connected the other ends of these three new wires to a connector strip.

Looking at the back of the star wars yoke you will see several sets of 4 sets of Red, White and Black wires. One is connected to the pot inside the yoke which registers the up and down movement. This pot is located in the front section of the yoke. You will also have another two sets of wire coming from the front of the yoke which are the button wires. Finally you have the last set of wires coming from the pot registering the left right movement, which is in the back part of the yoke (this is the easiest one to identify). Its best to try and identify and label each set of wire. I didn't do this and was lucky to wire it up right first time.

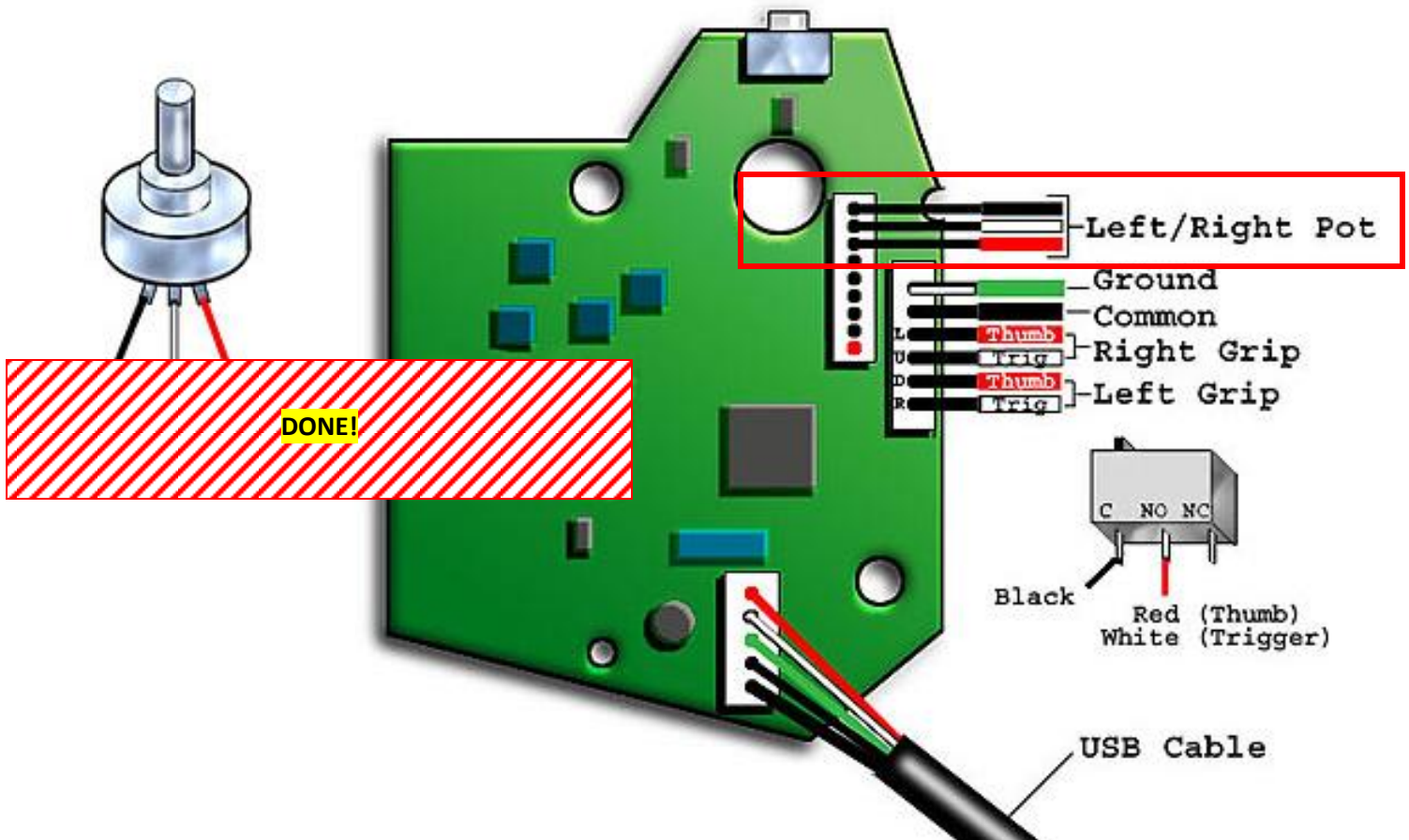
Ok, wiring it up now is pretty straight forward. If you have identified the up / down set of wires connect them to the connector strip you just made using the guide below :



Next I connected the left right pot. First I connected the three wires from the circuit board to another connector strip and then connected these to the left / right pot set of wires from the yoke.

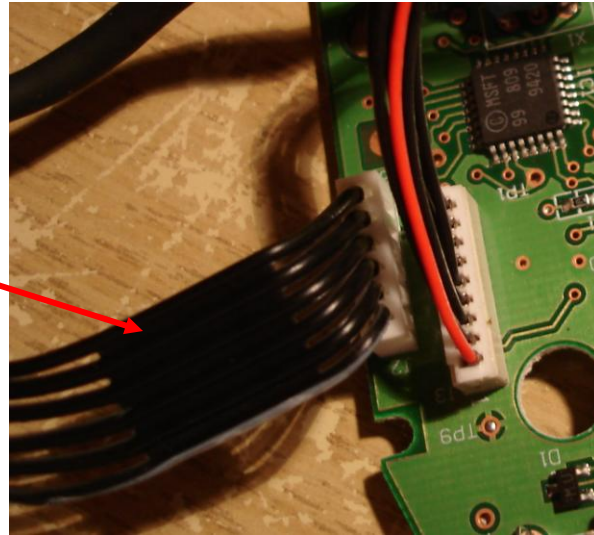


The section above is highlighted below for more clarity.

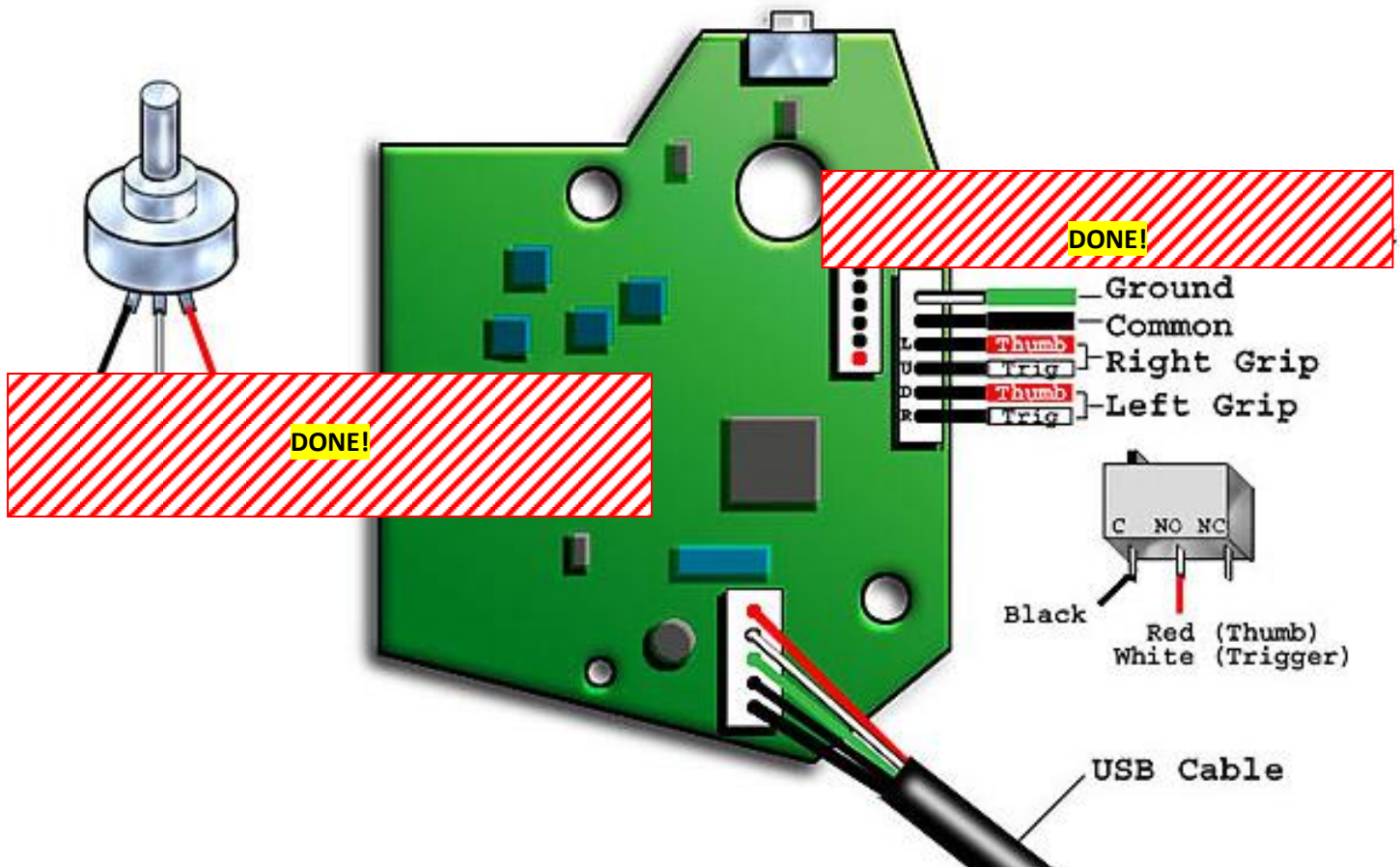


Ok, we are nearly there! We only have 2 sets of wires left and one Green wire. The two sets should be the button wires. These need to be connected to the outer most strip of black wire. These wires were joined together, so I cut them apart using the knife and then connected the ends to a connector strip.

Separate these but cutting between them to make it easier to fix into the connector strip



Now let's get rid of that odd green wire. Connect this as shown below to your new connector strip



Now take the remaining last two black wires and twist them together so we have one black wire. Then connect them into the connector strip. Finally add the remaining red and white wires. I didn't take much care over if it came from the left grip or the right grip as I will be redefining the keys anyway in mame. But they should obviously be fixed into the connector strip in pairs.

Here is the finished result (with a bit tape and cable ties which I added after I ensure it worked properly!!!)

