XBOX One

Berserker

Flex Modchip

Installation Instructions

Revised 1/14/2014

Tools needed

- XBOX One Controller
- Viking XBOX One Berserker Flex modchip Kit (includes mod chip, LED board, and LED lense, switches)
- Soldering iron and solder
- 30 AWG wire (American wire gauge) or similar
- Wire strippers (capable of stripping above wire)
- Electrical tape
- Small flathead screwdriver or similar prying tool
- Security Torx 8 and regular Torx 6 screwdrivers
- Power drill
- 9mm and 9/64 inch drill bits (intermediate sizes also useful)
- Hot glue and glue gun
- Safety glasses
- Additional useful items: flux, tweezers, scissors, wire snippers, etc.

Remove the screws and cover

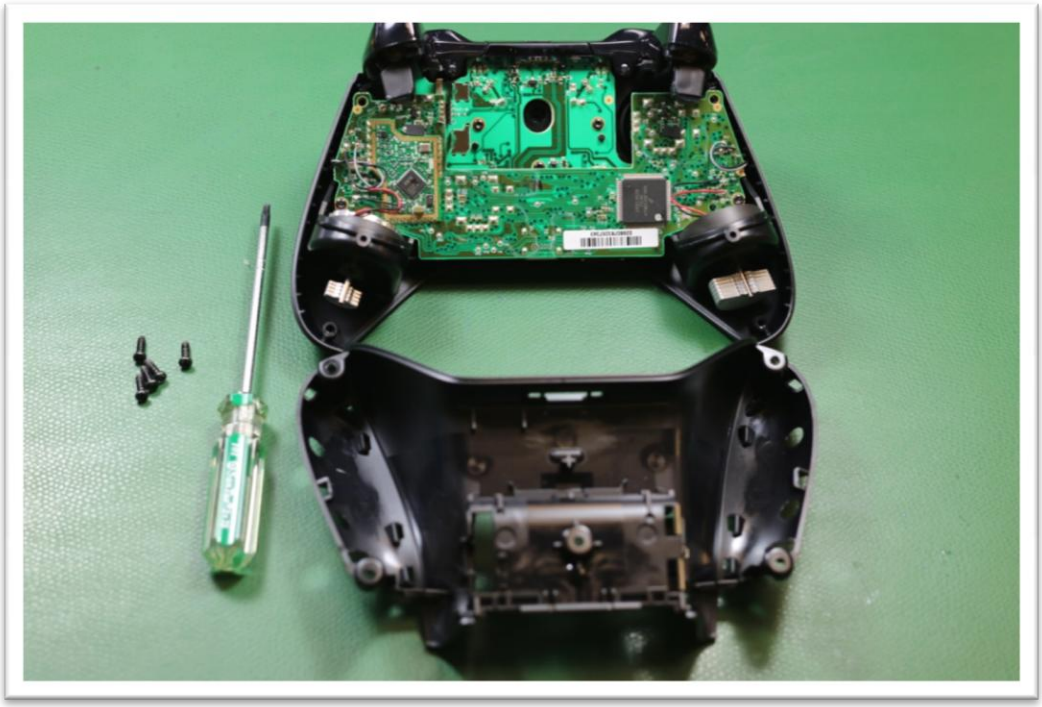
You'll need to remove two plastic handle covers to reveal the screws. Special care should be taken not to scratch the shell. One way to accomplish this is to use a small flat-head screwdriver as a prying bar. Depress the trigger, then push the screwdriver in next to the trigger such that it won't scratch the trigger. Use the screwdriver to pry the handle away from the shell.

Once you've started with the screwdriver, you can finish removing the handle covers with your fingers. Some force is required to pull the covers off.

Once the handle covers are removed you'll need your Torx screwdrivers. Go ahead and remove the battery pack cover now.

There are five screws that need to be removed. Each screw is indicated in the photo below with a red arrow.

Once the five screws are removed, flip the shell over to expose the circuit boards inside of the controller.

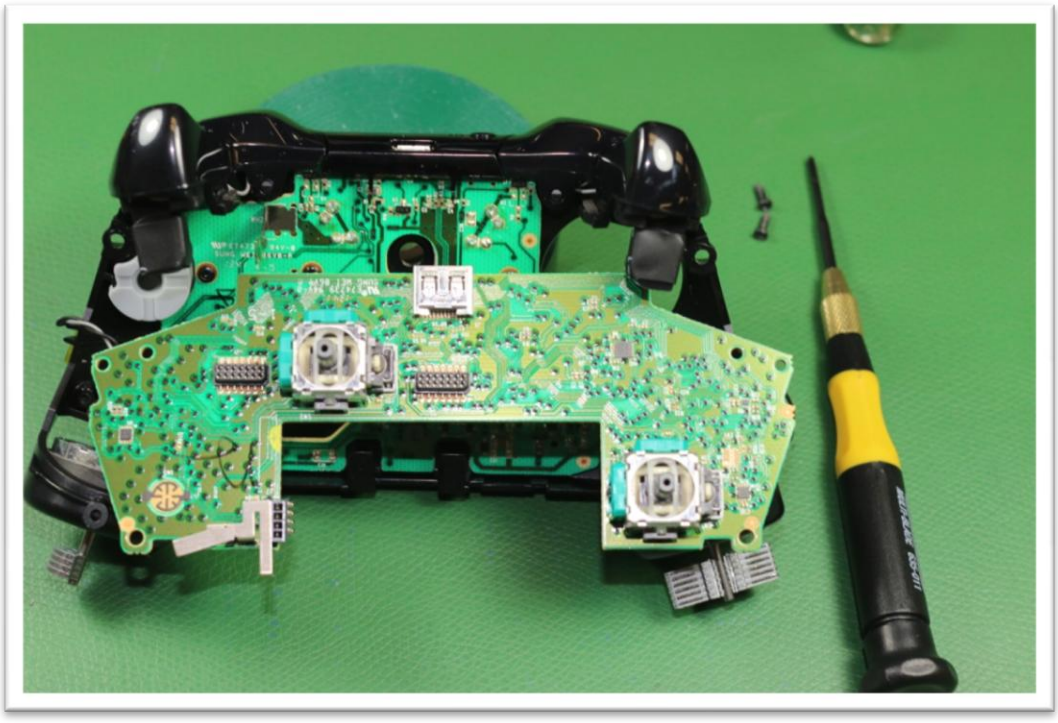


The faceplate can also be lifted off, and the thumb stick caps should be removed and set aside.

Disassemble the circuit board

Remove the two Torx 6 screws indicated in the picture.

Desolder the wires for the rumble motors and set the rumble motors aside. Pull the “boomerang” shaped circuit board out of the controller



Drill Shell and Install Indicator

The LED indicator is installed into the faceplate. A 9mm hole must be drilled into the faceplate to accept the indicator, which is 9mm in diameter. You may oversize the hole, but if you drill the hole at 9mm, the LED indicator will press-fit into the hole nicely. 9mm drill bits are available from UK dealers on E-Bay.

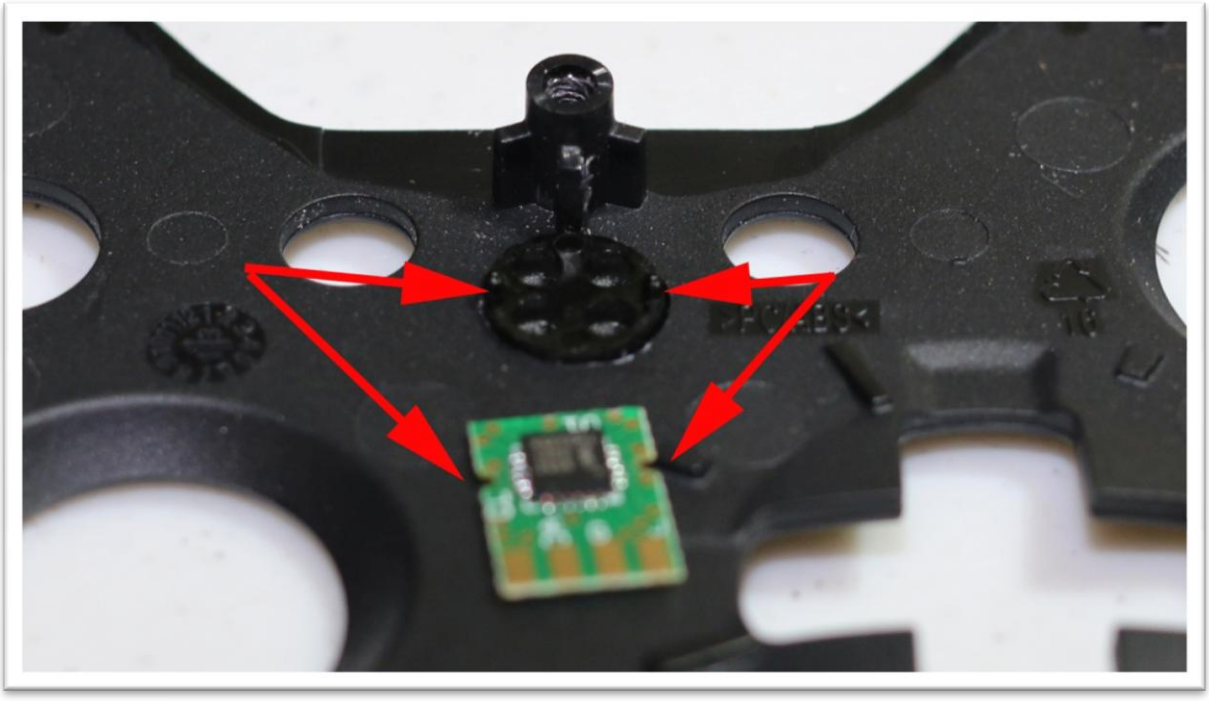
Notice the injector mark that looks like a large circle with the letter “A” inside. This injector mark can be used as a visual guide to help center the 9mm hole.

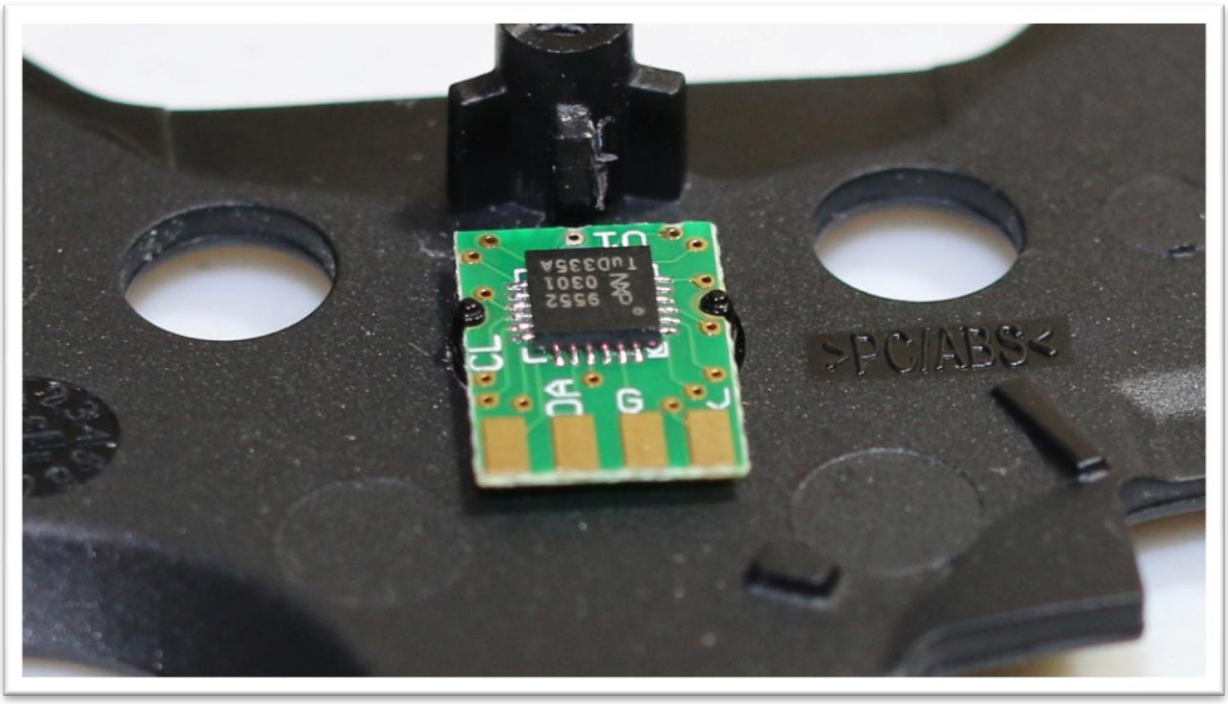
Begin by drilling a smaller pilot hole, using the injector mark as a visual guide.

For best results, drill another larger intermediate sized hole, but don't drill the 9mm hole yet.

Finally, drill the 9mm hole. The 9mm hole should sit about flush with the plastic screw peg above it, but you should not have to remove or disturb any of the plastic on the screw peg.

Press the LED indicator into the hole as shown. Be sure to orient the two small orientation pegs properly as these will have to mate with the LED driver board.



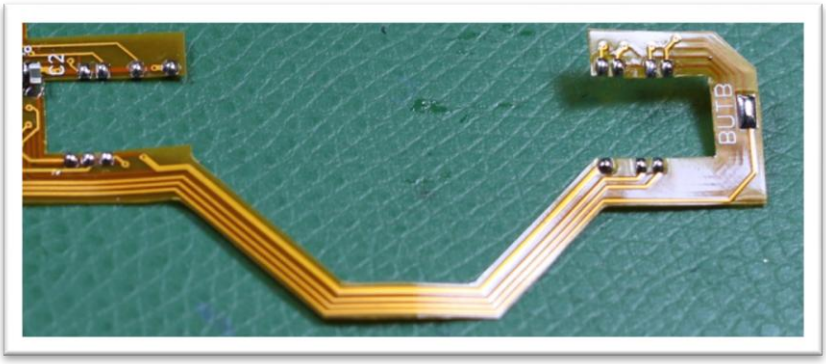


Use sufficient hot glue to hold the LED lense and LED driver board securely.

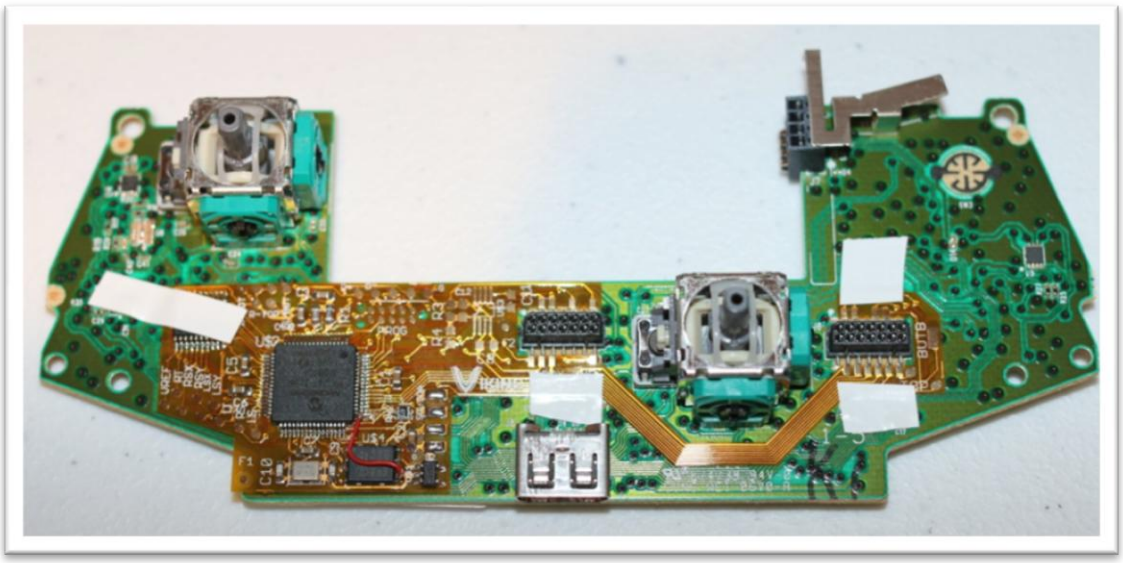
(MOD SWITCH AND PADDLE SWITCH INSTALLATION INSTRUCTIONS AND PHOTOS GO HERE)

Install the modchip

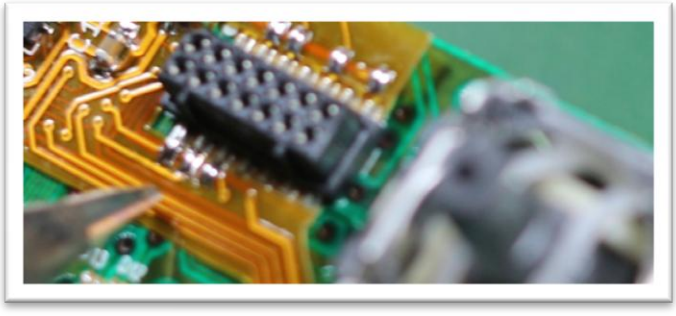
Add solder to all of the wire pads on the mod chip. Use plenty of solder on the smaller pads.

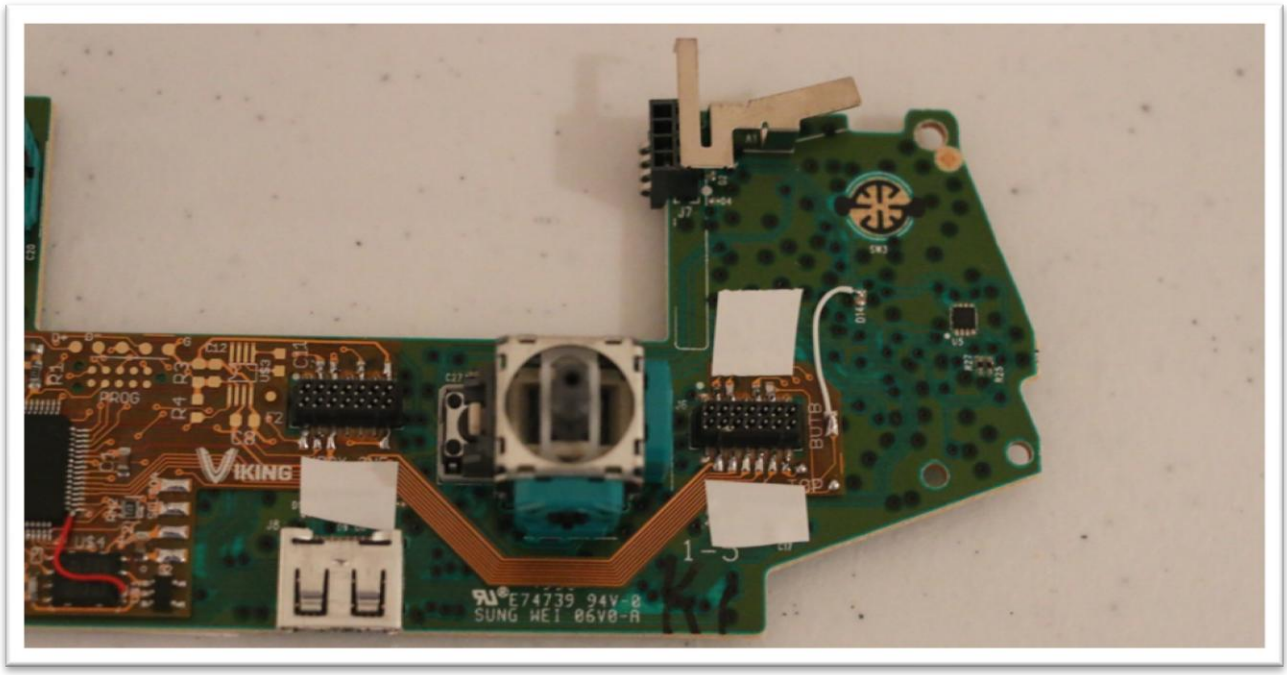


Visually line up the mod chip so that the small pads match up nicely with the small “feet” on the black rectangular headers. You will be soldering the mod chip to the black rectangular headers. Use electrical tape to secure the modchip in place.

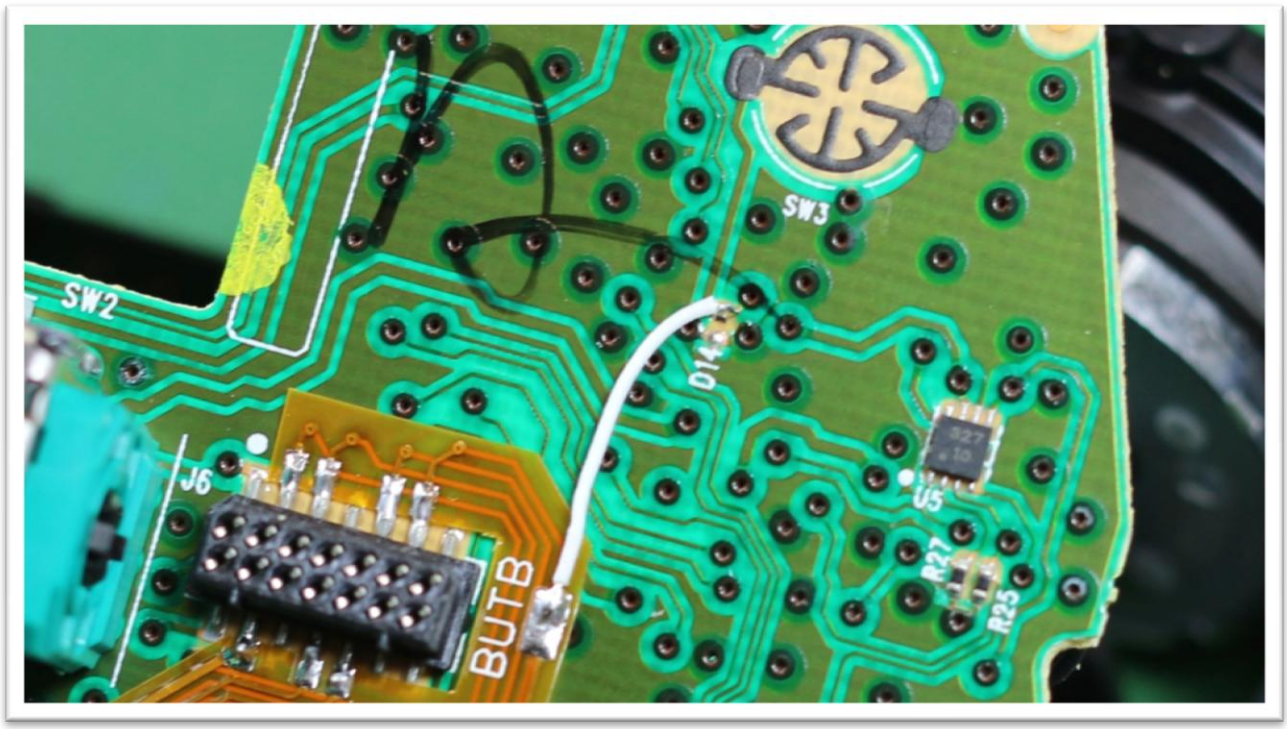


Use the soldering iron to solder one pad to one “leg” of the header at a time.

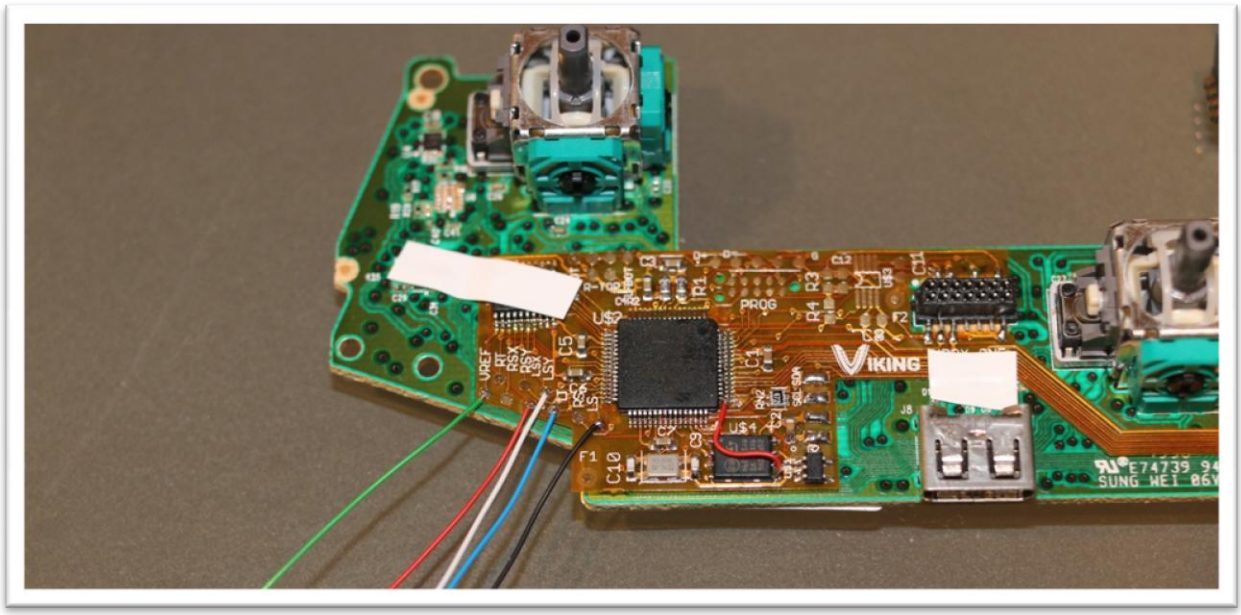




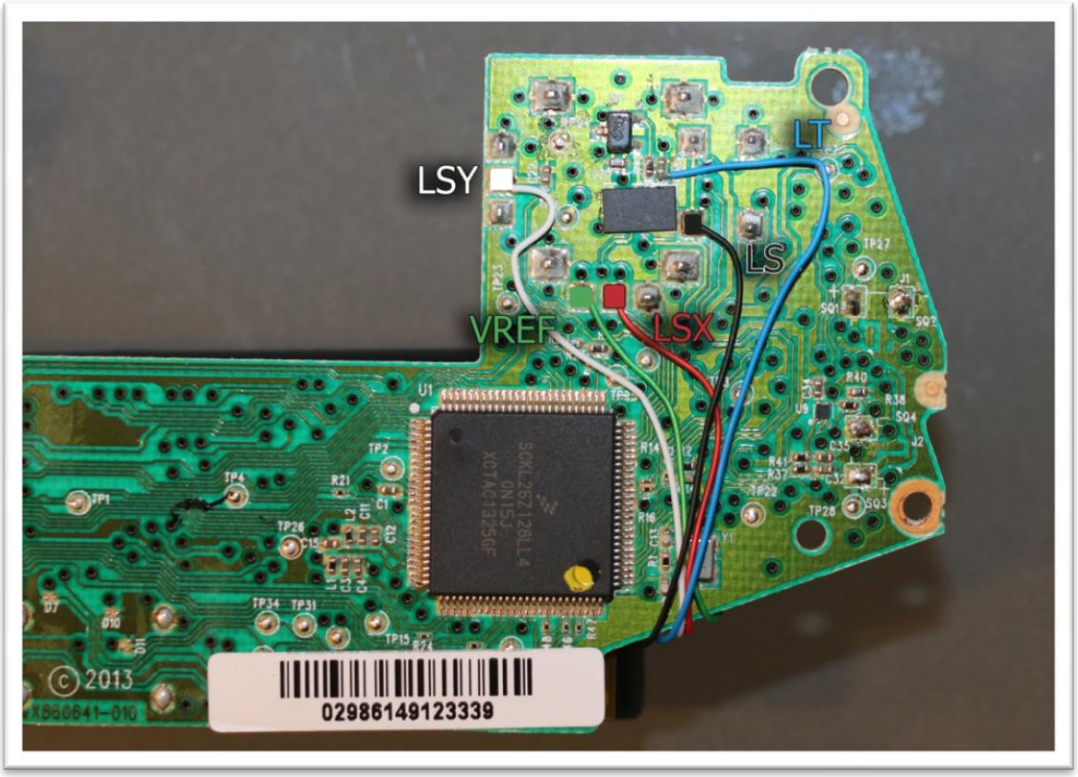
Install a small wire jumper from “BUTB” on the mod chip to the upper-most wire pad above the “D14” marking on the Microsoft circuit board.

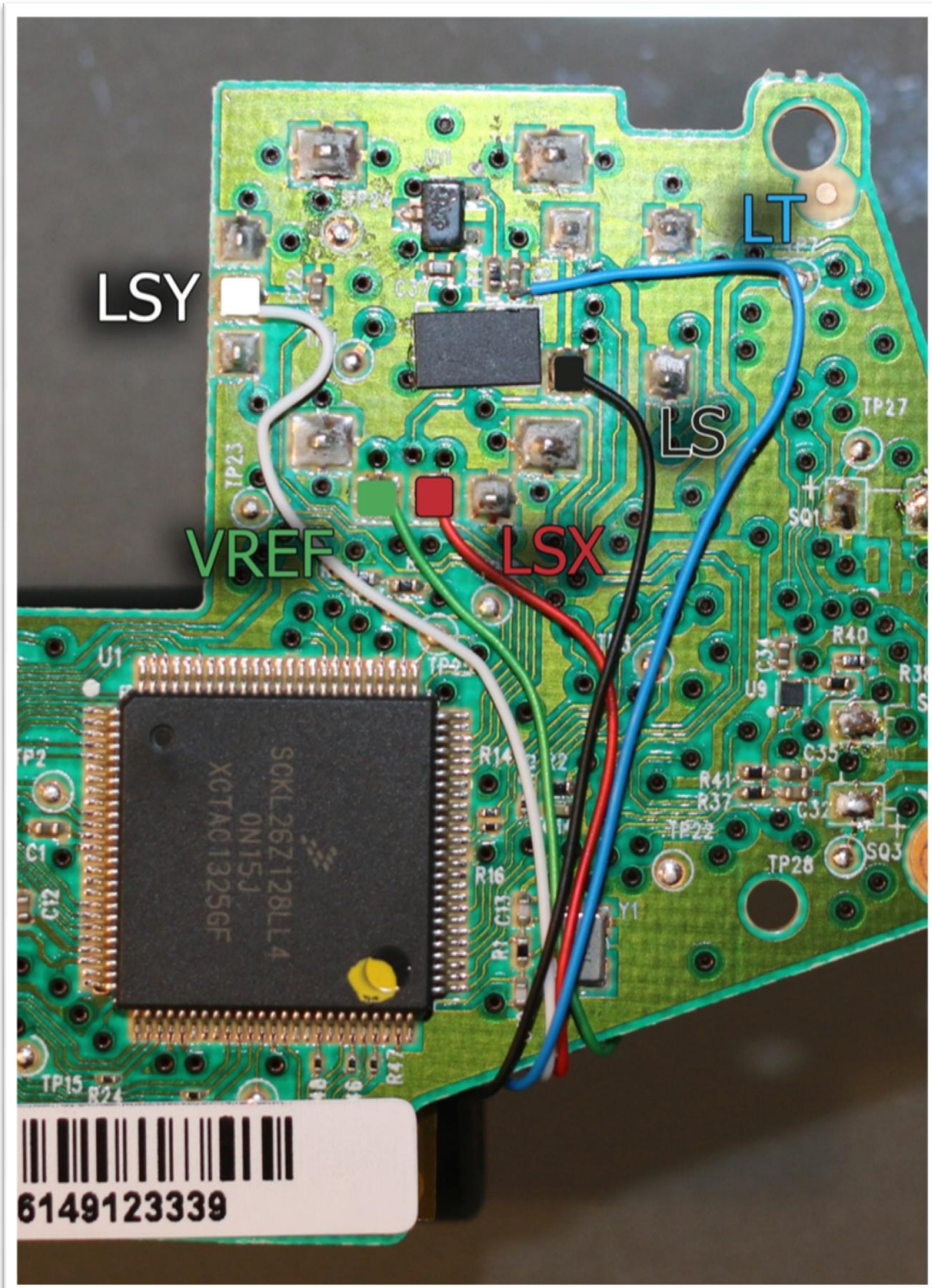


The following wires will be installed at the same time: VREF, LSX, LSY, LT and LS. Attach those five wires to the small round solder pads:

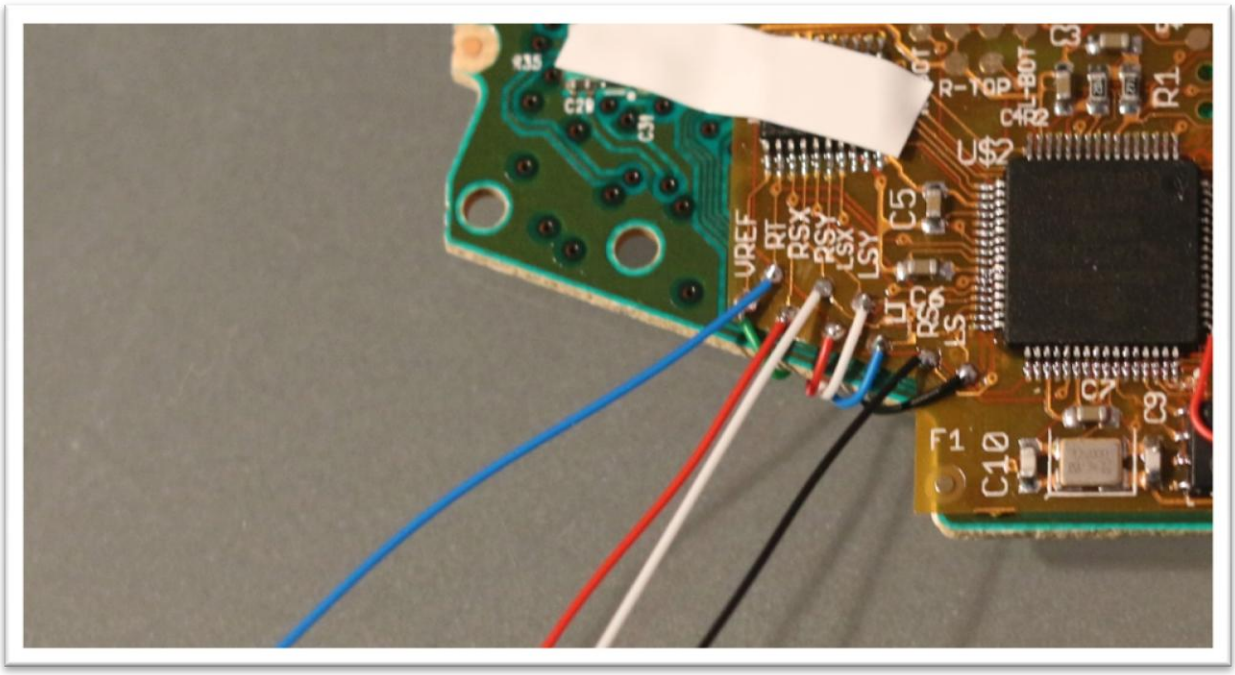


Then carefully bend the wires around the circuit board to the opposite side and solder them as shown:

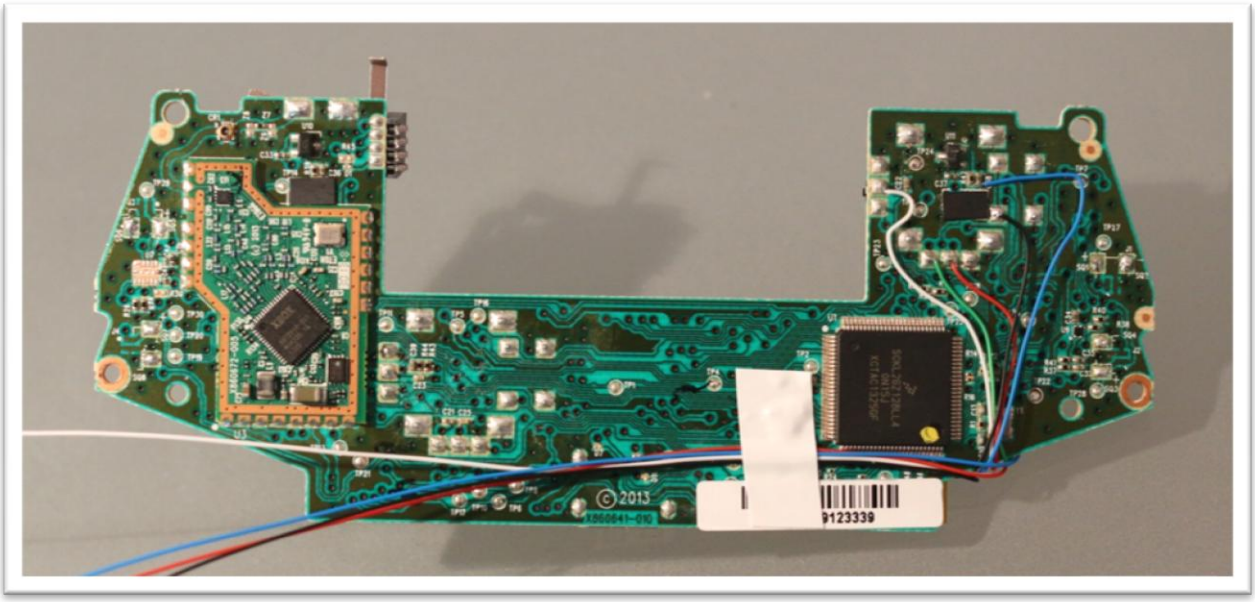



LSY
LT
LS
VREF
LSX
6149123339

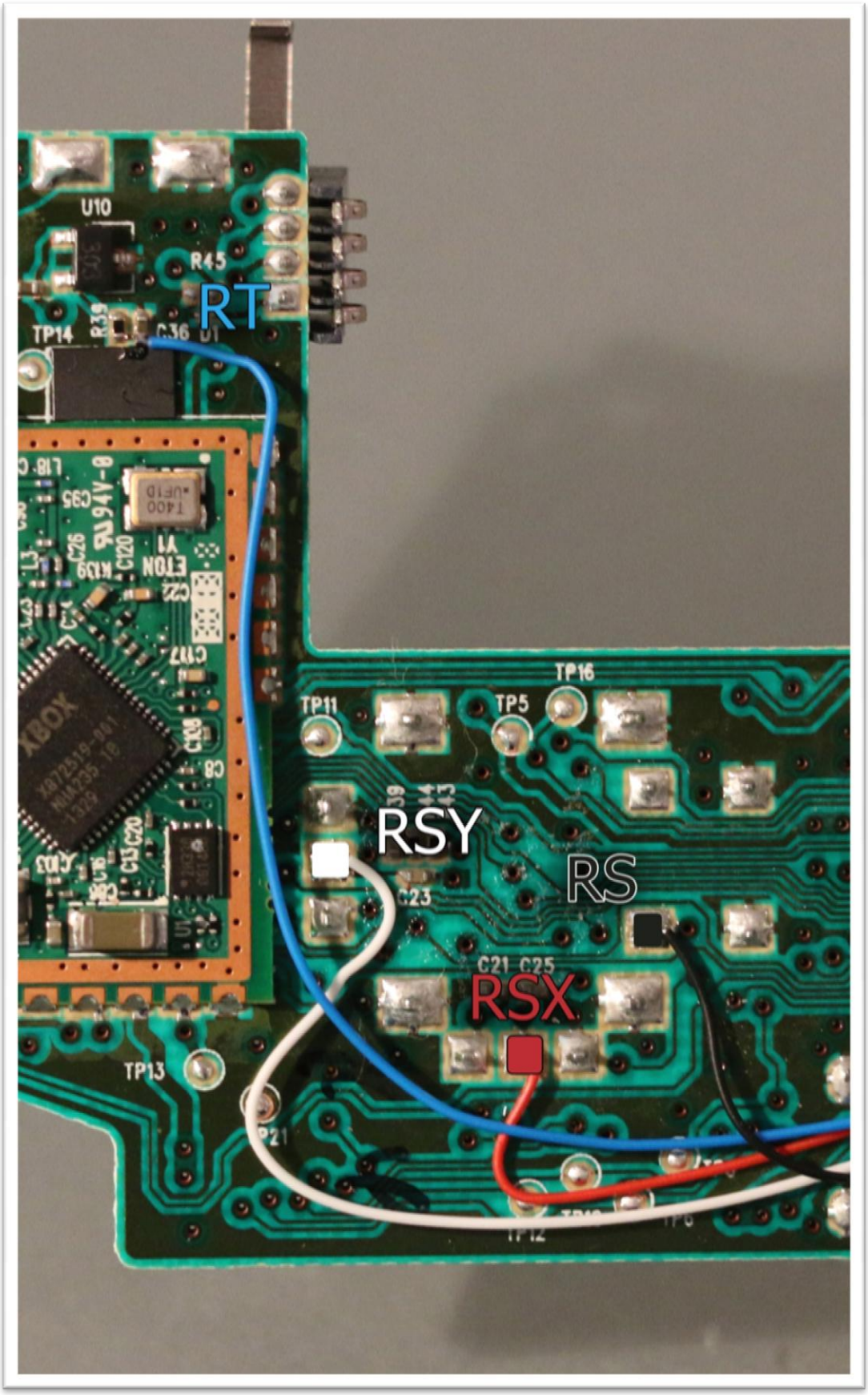
The next four wires to be installed are RSX, RSY, RT and RS. Attach those wires:



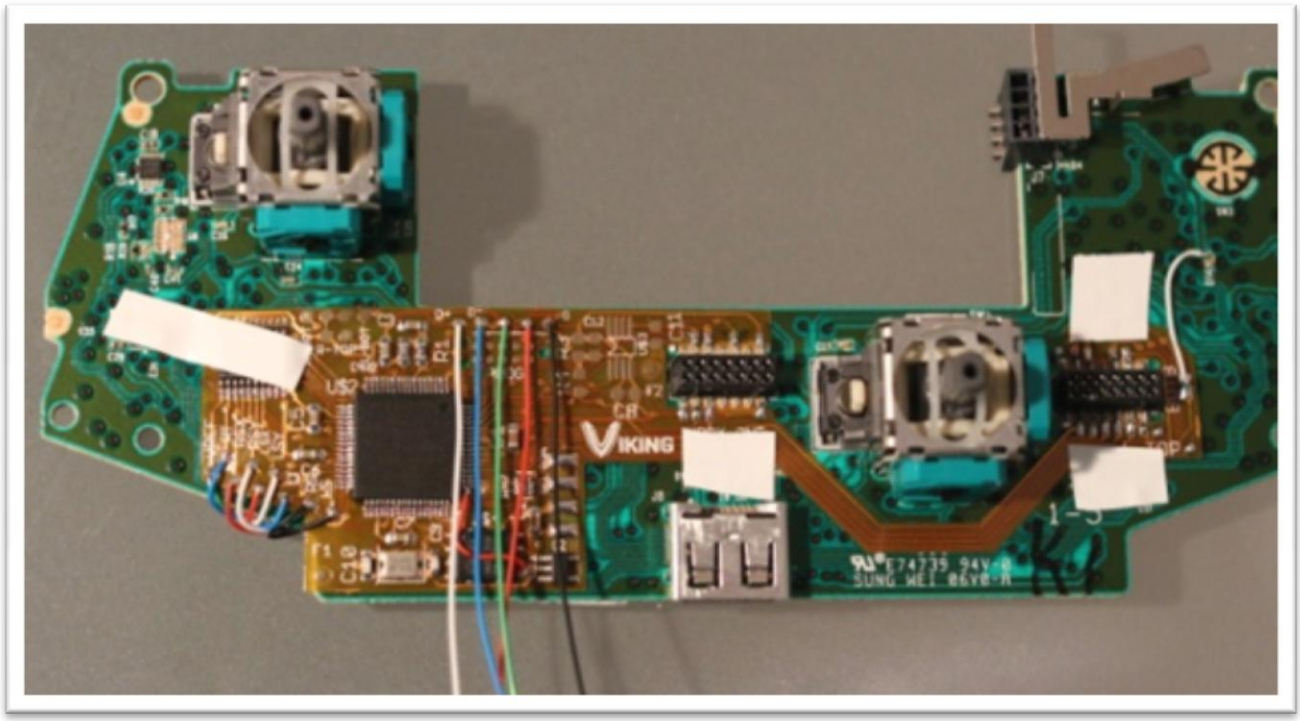
And carefully wrap them around the board. Be sure to run them NEXT to the large black microchip, NOT ON TOP of the large black microchip. Secure with a piece of tape as shown:



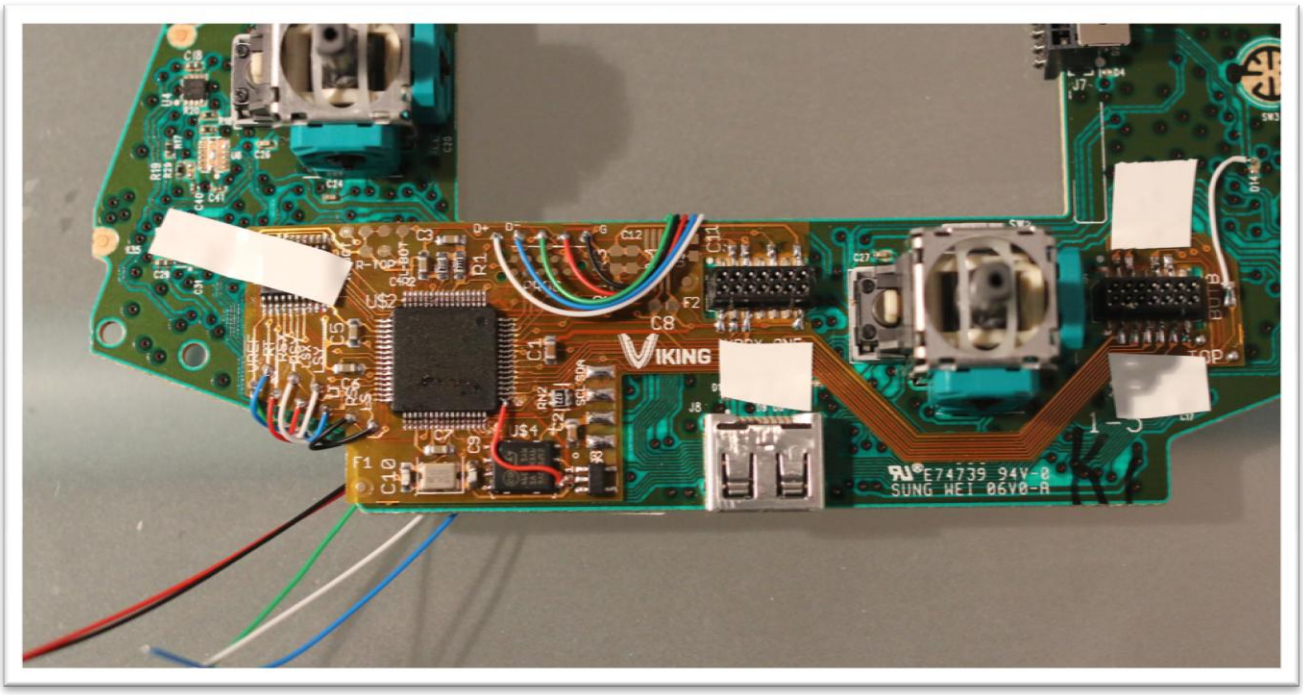
Solder the wires as shown:


RT
RSY
RS
RSX
U10
R45
TP14
TP16
TP11
TP5
TP13
C23
C21
C25

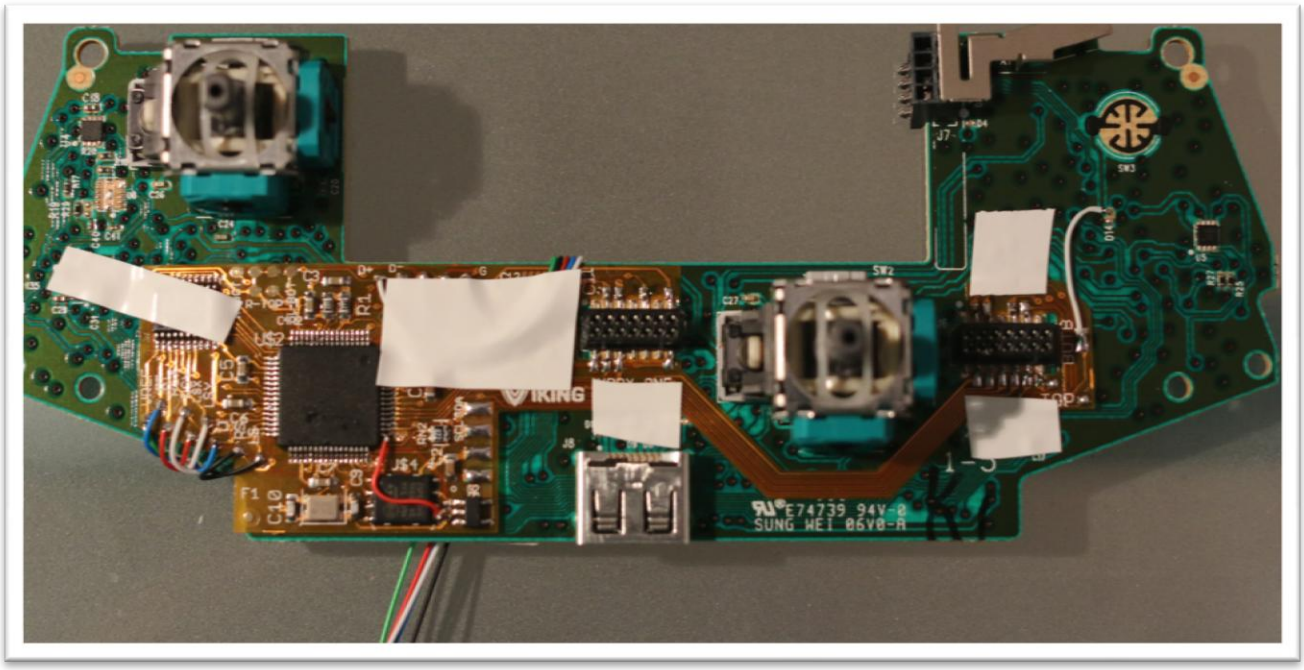
Install five wires to D+, D-, USBID, VUSB and G. These are the wires for the USB jack. Install the wires as shown:



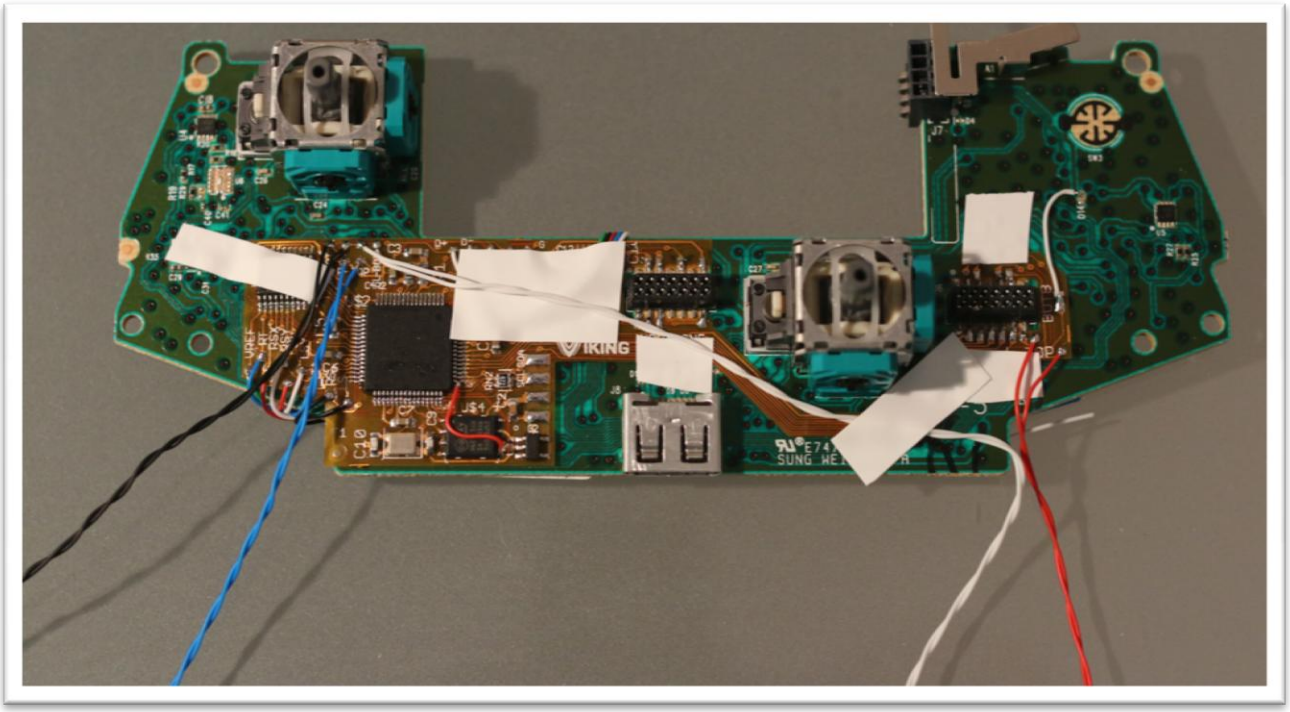
Carefully “arc” the wires and bend them around the circuit board:



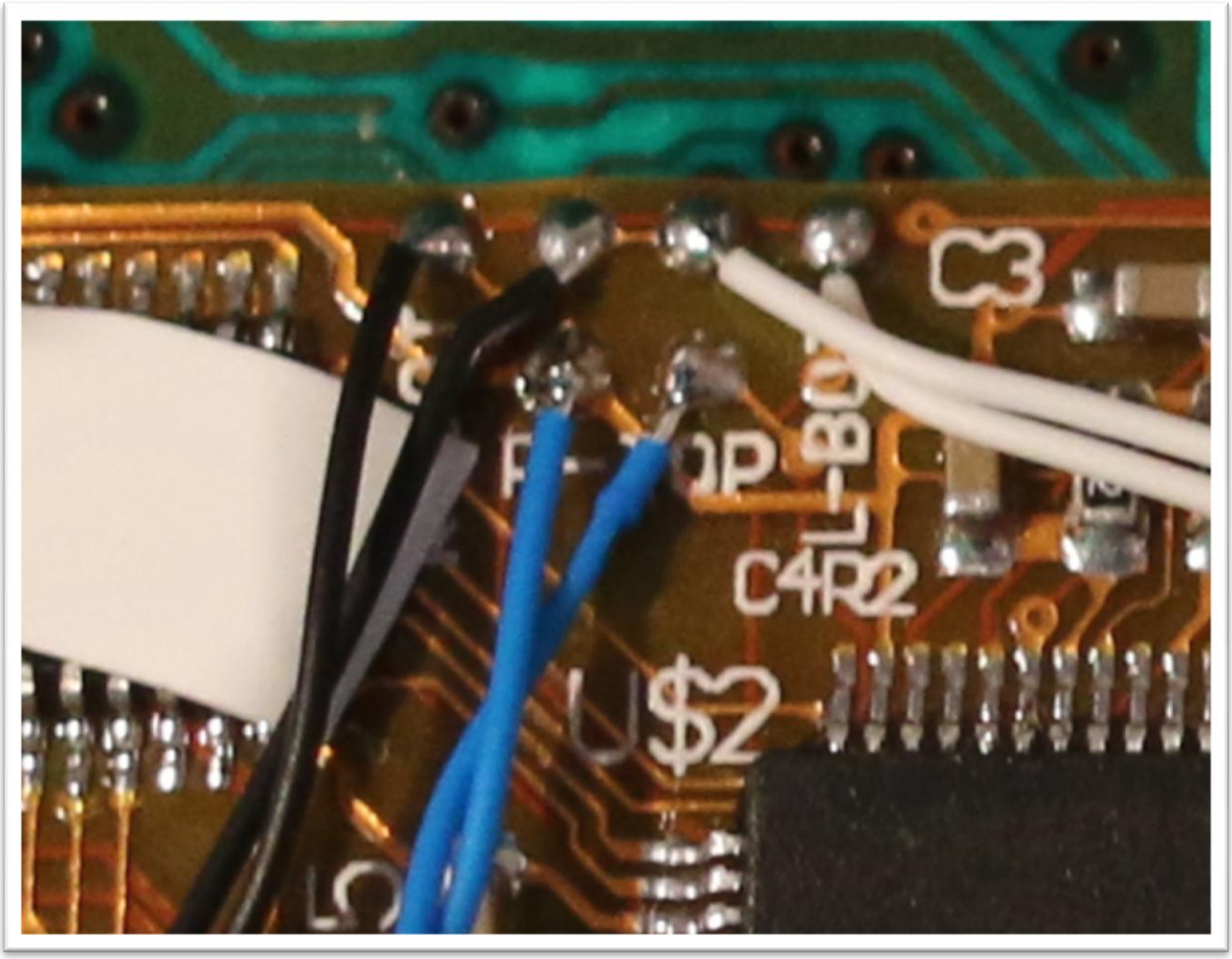
Secure the wires in place with a piece of electrical tape:”



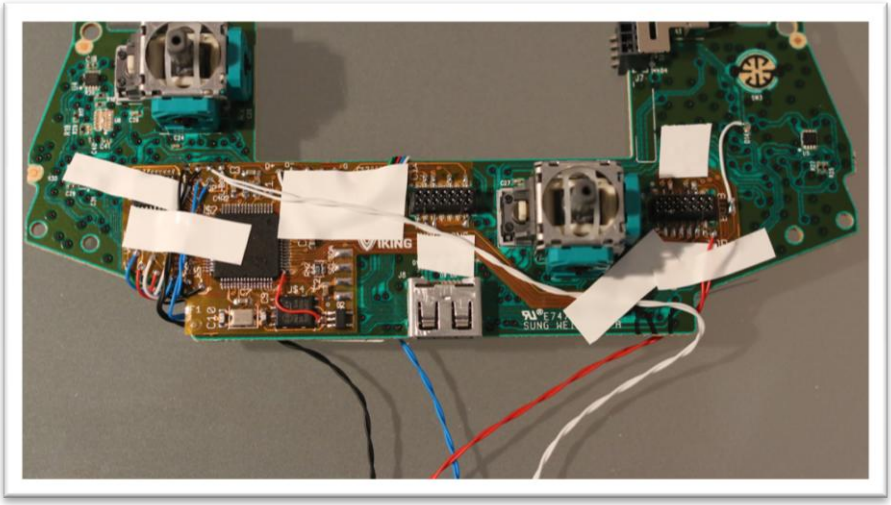
Attach four pairs of colored wires for the mod switches. The wire pairs shown in the photo are “LTOP” in red, “LBOT” in white, “RTOP” in blue, and “RBOT” in black:



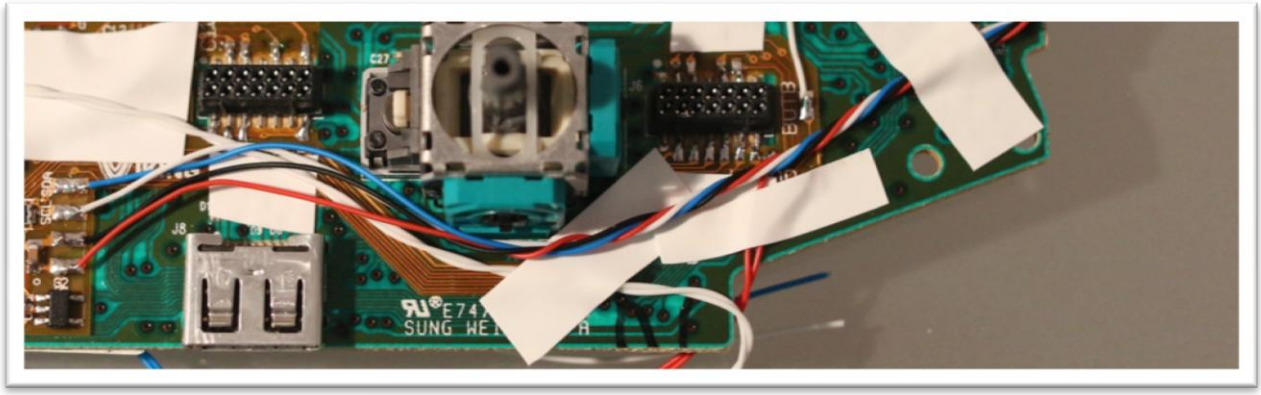
Here is a close-up photo showing attachment of the wire pairs for mod switches:



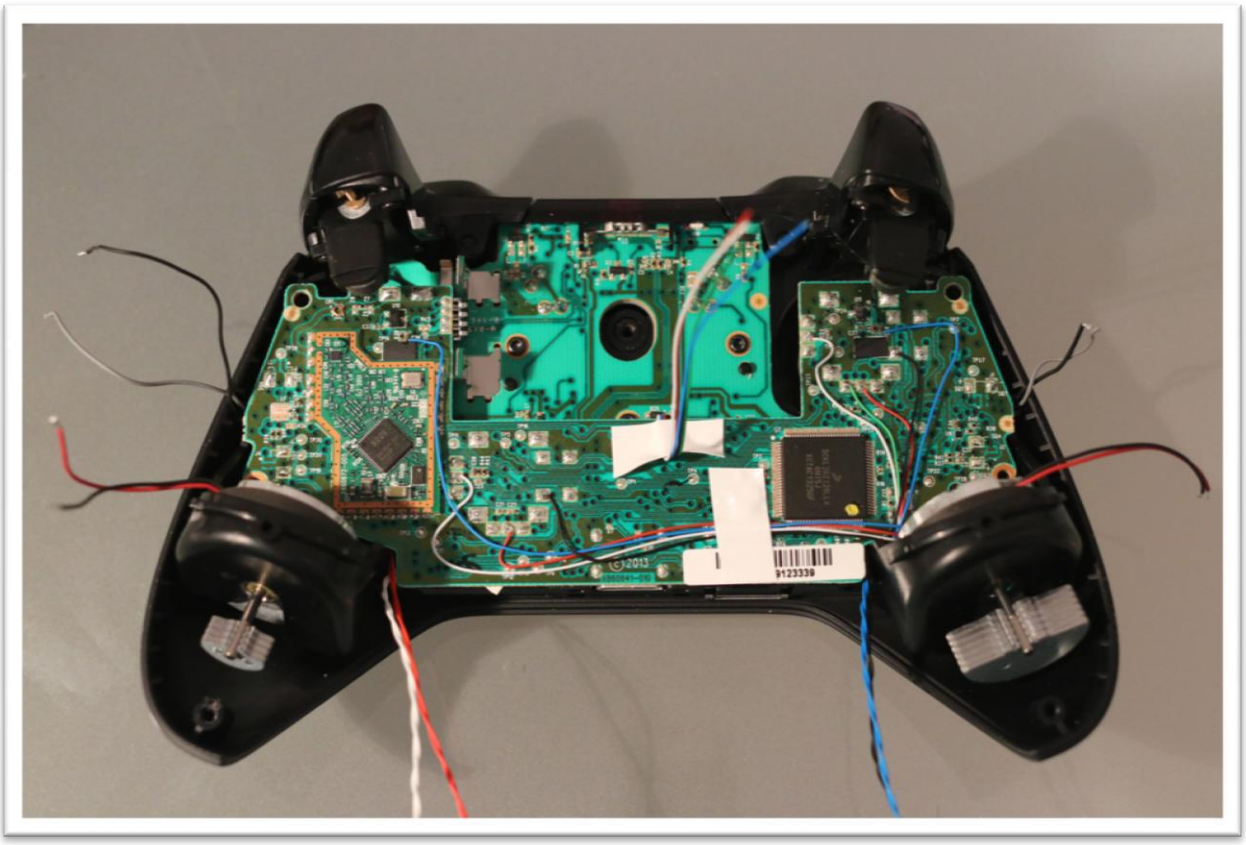
Route the white pair over to the red pair. The white pair should roughly follow the same path as the orange circuit board. Secure the red pair and white pair with some tape as shown:

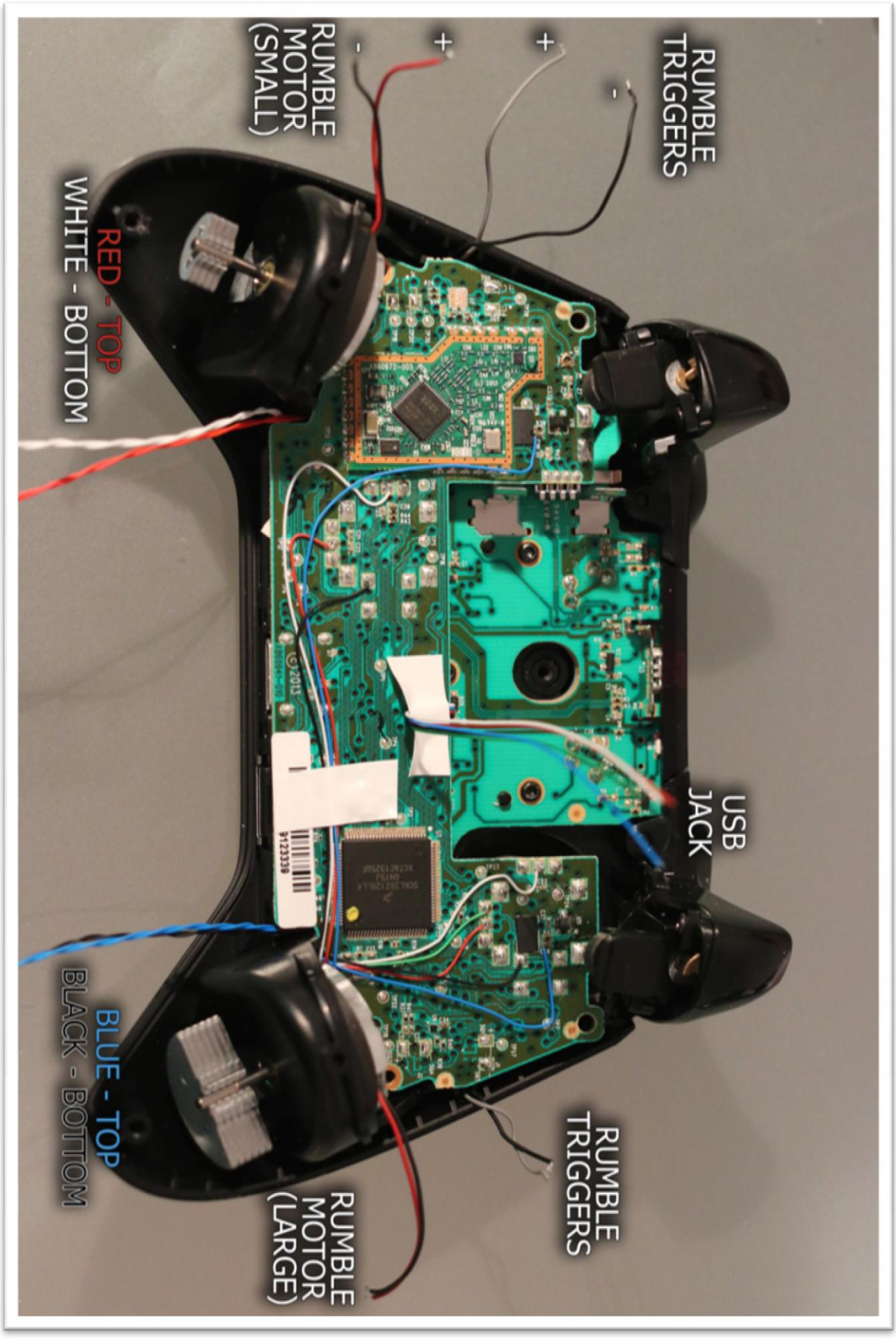


Install a 4-wire harness from the four pads labeled “V2, G2, SDA, SCL”. The harness should roughly follow the same route as the orange flex circuit board. Once the harness reaches the side of the Microsoft circuit board, it should NOT be twisted. Hot glue or tape may be used to attach the harness to the Microsoft circuit board.



Re-install the “boomerang” circuit board. There are lots of wires: The black/grey pairs are rumble triggers. The black/red pairs are rumble motors. The red, white, blue and black pairs are for mod switches. There is also a bundle of wires sticking up for the USB jack:



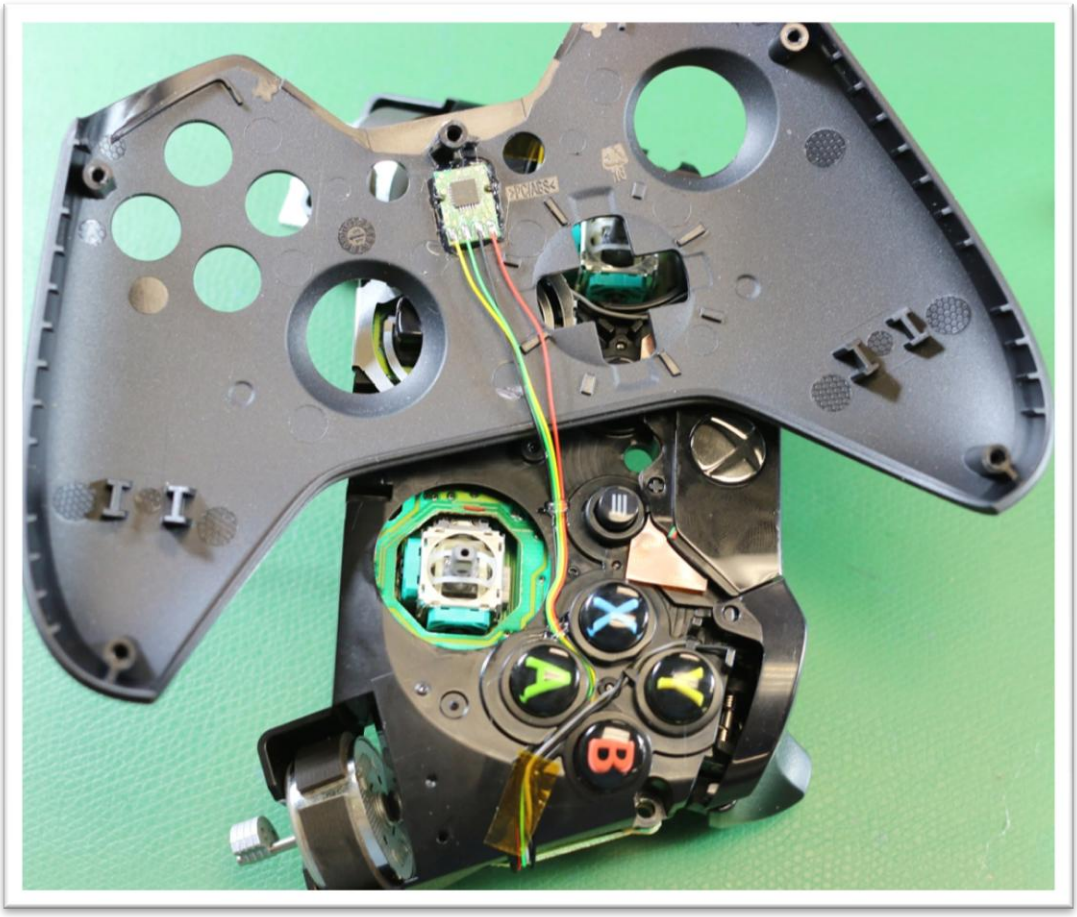

RUMBLE MOTOR (SMALL)
- +
RUMBLE TRIGGERS
+ -
RED - TOP
WHITE - BOTTOM
USB JACK
BLUE - TOP
BLACK - BOTTOM
RUMBLE TRIGGERS
RUMBLE MOTOR (LARGE)

Remove the orange piece of tape and untwist Microsoft's grey and black wires that run within the small "Trench". The grey and black wires, as well as the 4 wires for the LED drive board, will all fit in trench together provided that none of the wires are twisted. Replace the orange tape, and then route the 4 additional wires as shown.

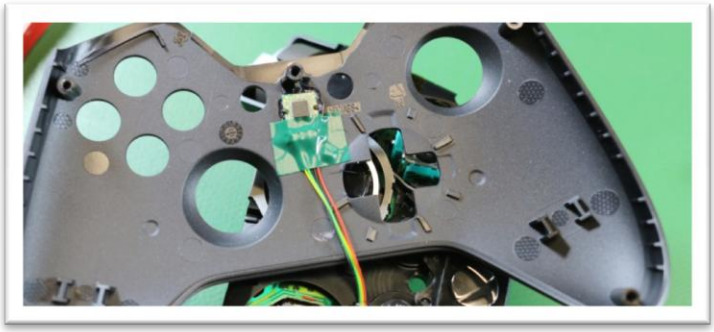
Hot glue can be used sparingly in certain areas to secure the 4-wire harness in place. Be sure the harness does not ride too "high" or it will prevent the faceplate from seating properly. Also be sure to keep the wires away from the joystick opening or it may interfere with proper joystick movement.

Orient the faceplate as shown and then trim the wiring harness as short as possible, while still allowing the wires to be attached to the LED driver board. The wire pairs are matched from the mod chip to the LED driver board as follows:

- G2 goes to G
- V2 goes to V
- SCL goes to CL
- SDA goes to DA



Cover the attachment points with a small piece of electrical tape as shown.



Put the controller together

Install the faceplate and back half of the shell. Be sure to keep an eye on all wiring harnesses and route them such that they are not pinched or short-circuited as you close up the shell. Re-install the five screws into the back half of the shell. Re-install the handle covers.

Your XBOX One controller is now modded! Please note that the controller MUST be sync'ed to a console before any of the mods will work.