

XBOX One

Remap Button and LED Mod

Solderless Modchip

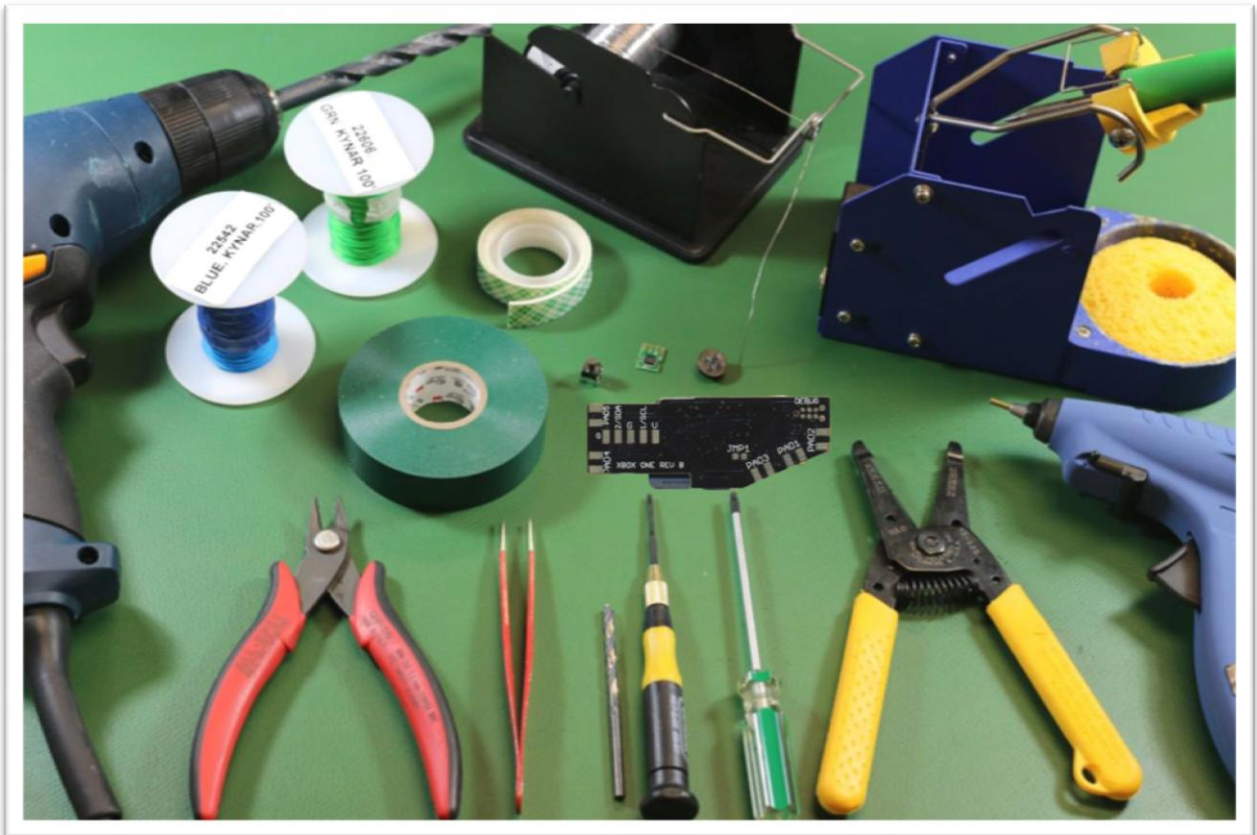
Installation and Use Instructions



Revised 2/16/2015

Tools needed

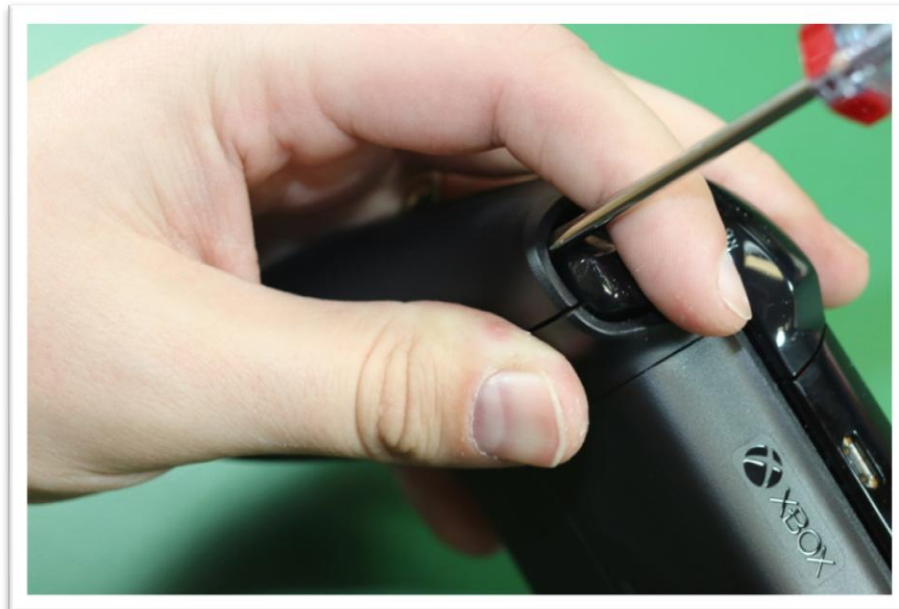
- XBOX One Controller
- Viking XBOX One Solderless modchip (with remap and LED mod software)
- RGB Guide Button LED Mod Board with ribbon cable
- Tactile switches
- Soldering iron and solder
- 30 AWG wire (American wire gauge) or similar
- Wire strippers (capable of stripping above wire)
- Electrical tape
- Small flathead screwdriver or similar prying tool
- Security Torx 8 and regular Torx 6 screwdrivers
- Power drill
- 9/64 inch drill bit
- Hot glue and glue gun
- Safety glasses
- Additional useful items: flux, tweezers, scissors, wire snippers, etc.



Remove the screws and cover



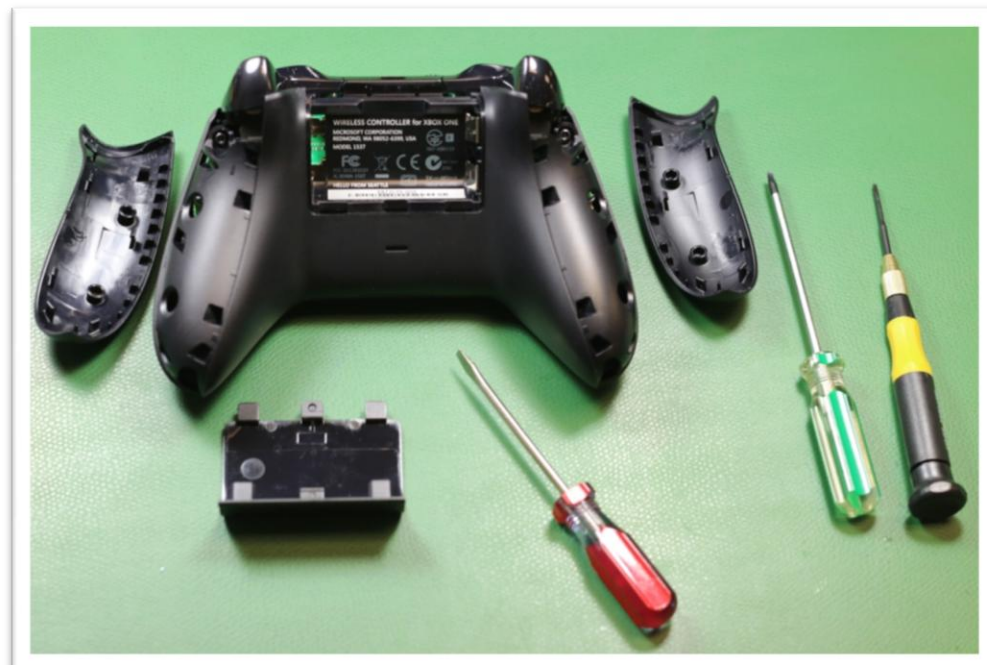
You'll need to remove two plastic handle covers to reveal the screws. Special care should be taken not to scratch the shell. One way to accomplish this is to use a small flat-head screwdriver as a prying bar. Depress the trigger, then push the screwdriver in next to the trigger such that it won't scratch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



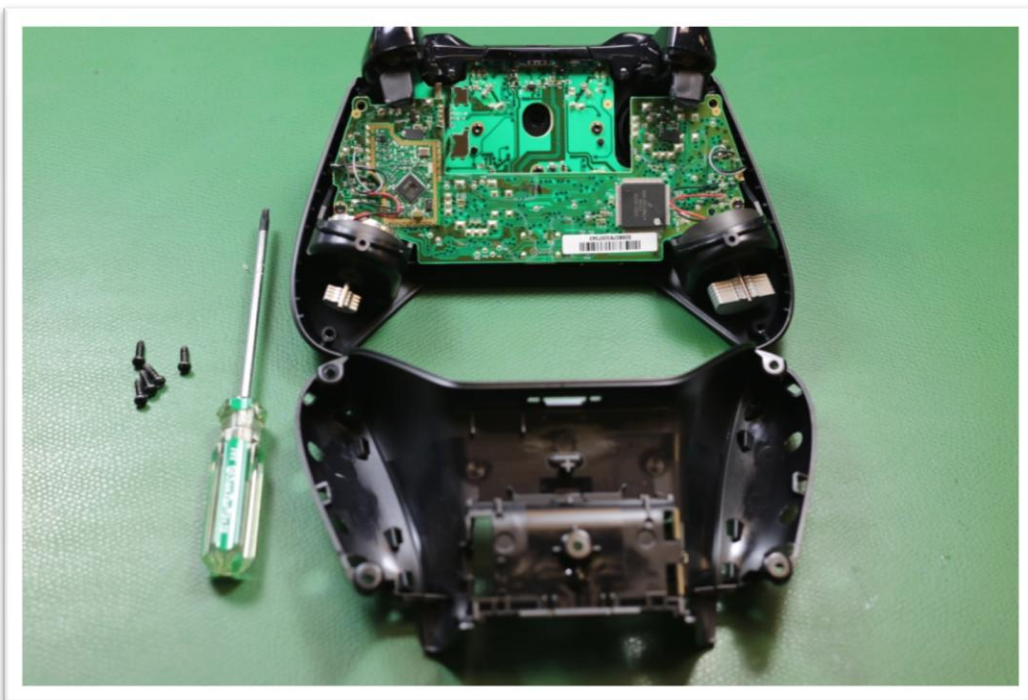
Once the handle covers are removed you'll need your Torx screwdrivers. Go ahead and remove the battery pack cover now.



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.



Installing the Guide Button LED Mod Board

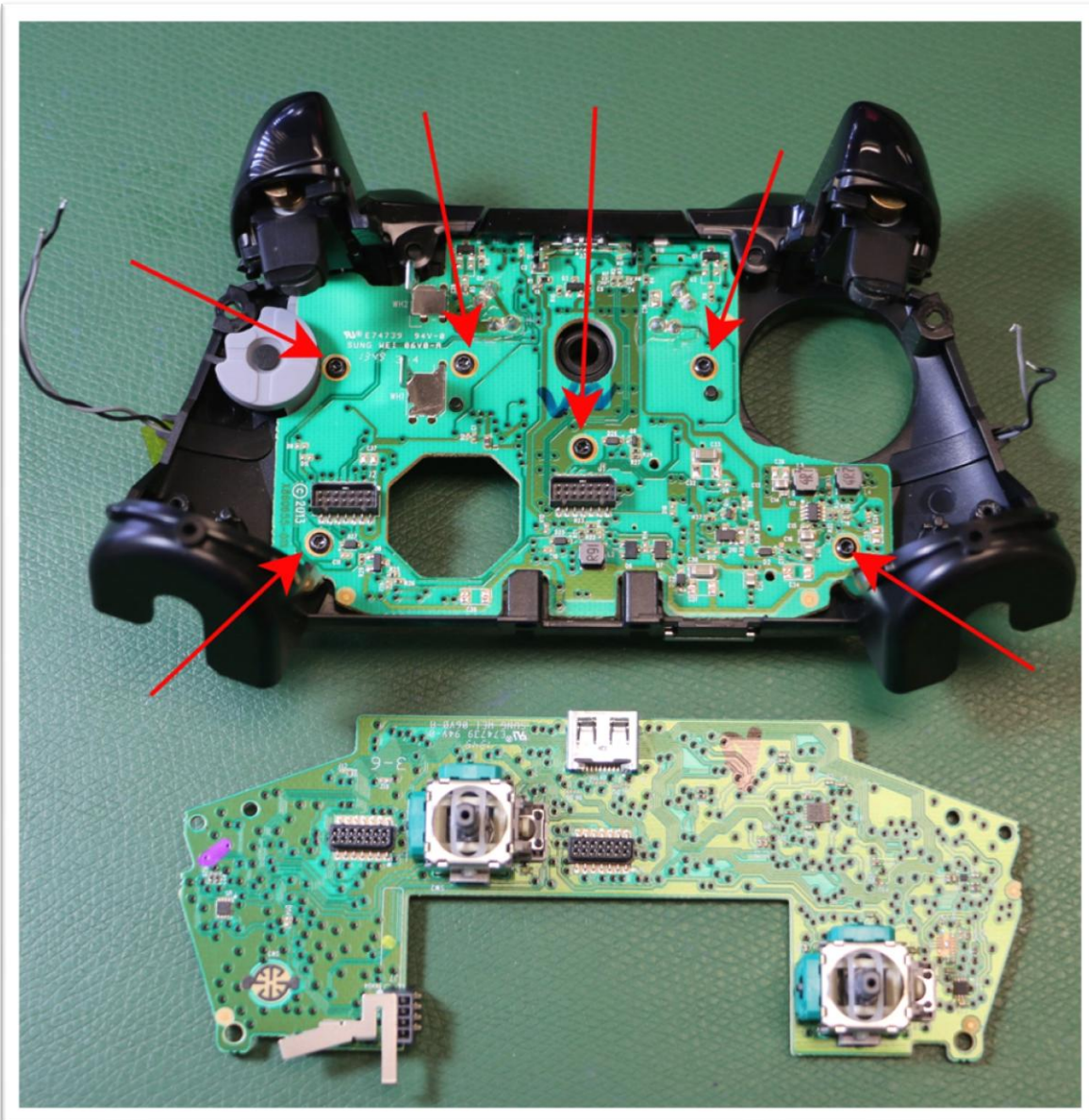
If you wish to replace the stock guide button LED within the XBOX One controller with a user-selectable multi-color “RGB” LED, follow the additional instructions in this section. Remove the two screws shown in the photo below.



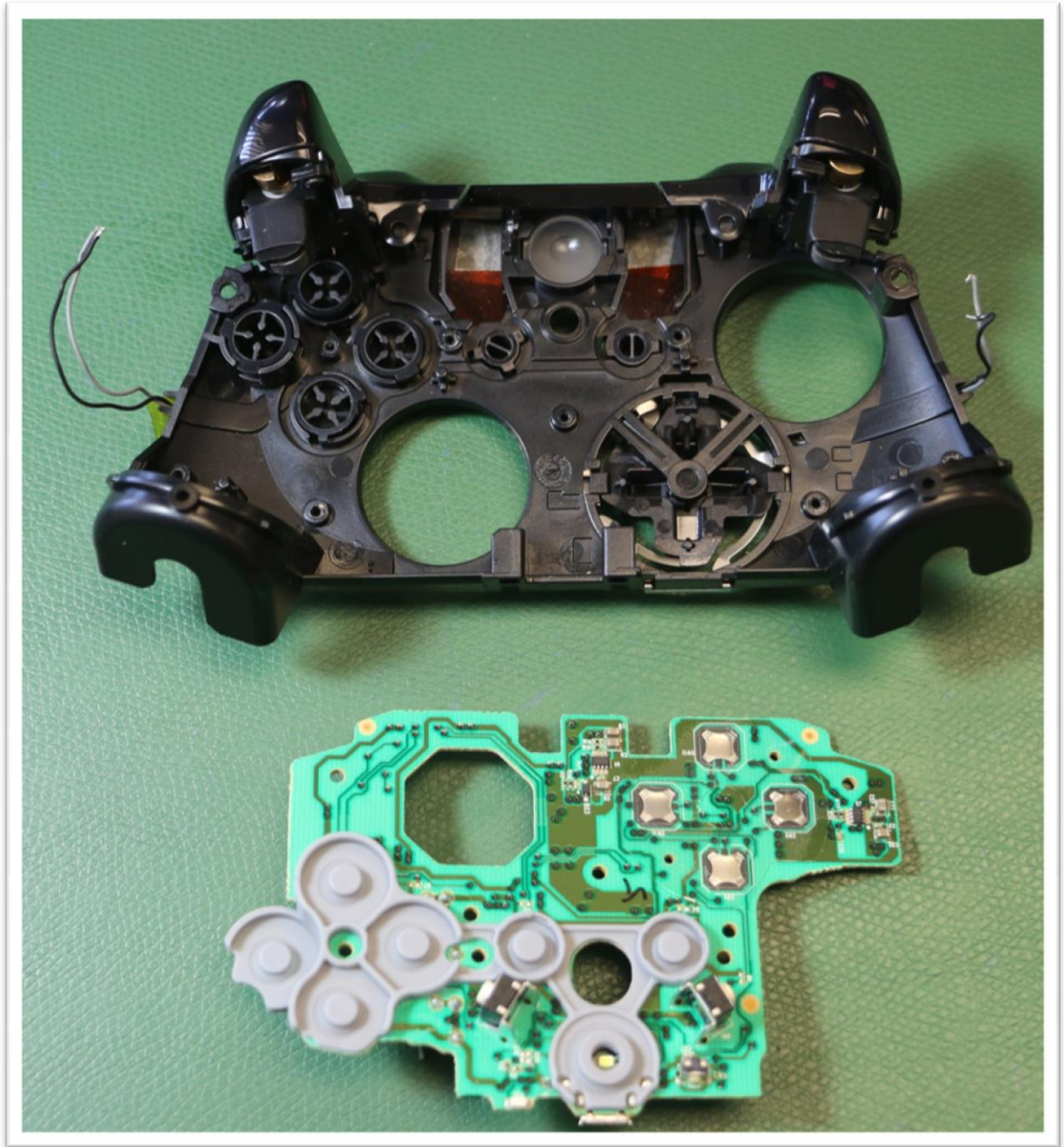
Also, desolder 8 wires total – 4 red/black wires that connect to the main rumble motors, and the other 4 red/grey wires that connect to the trigger rumble motors. Set the rumble motors aside.



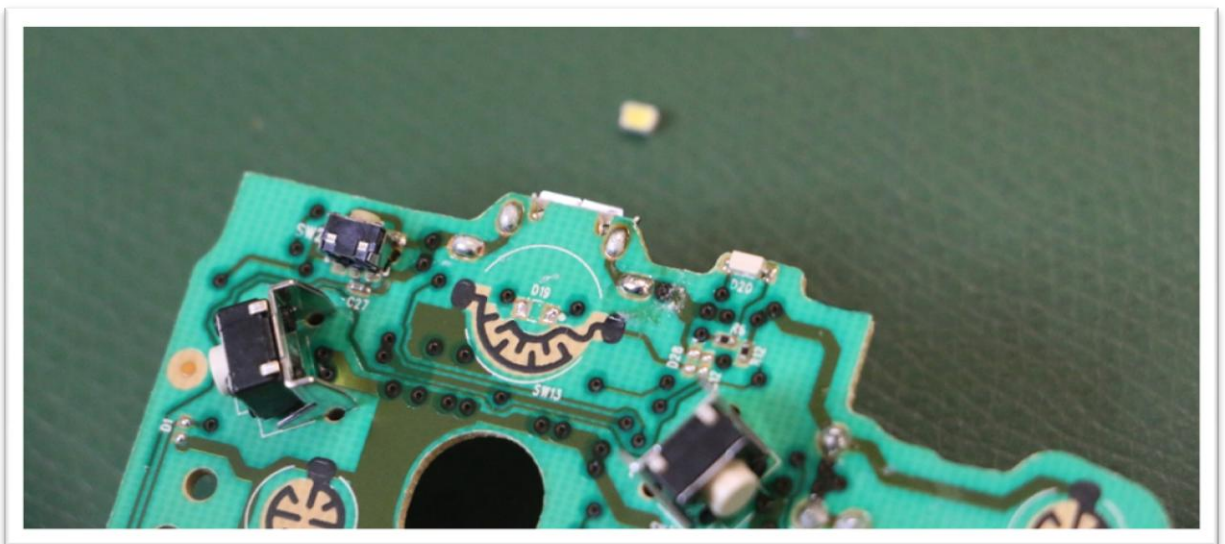
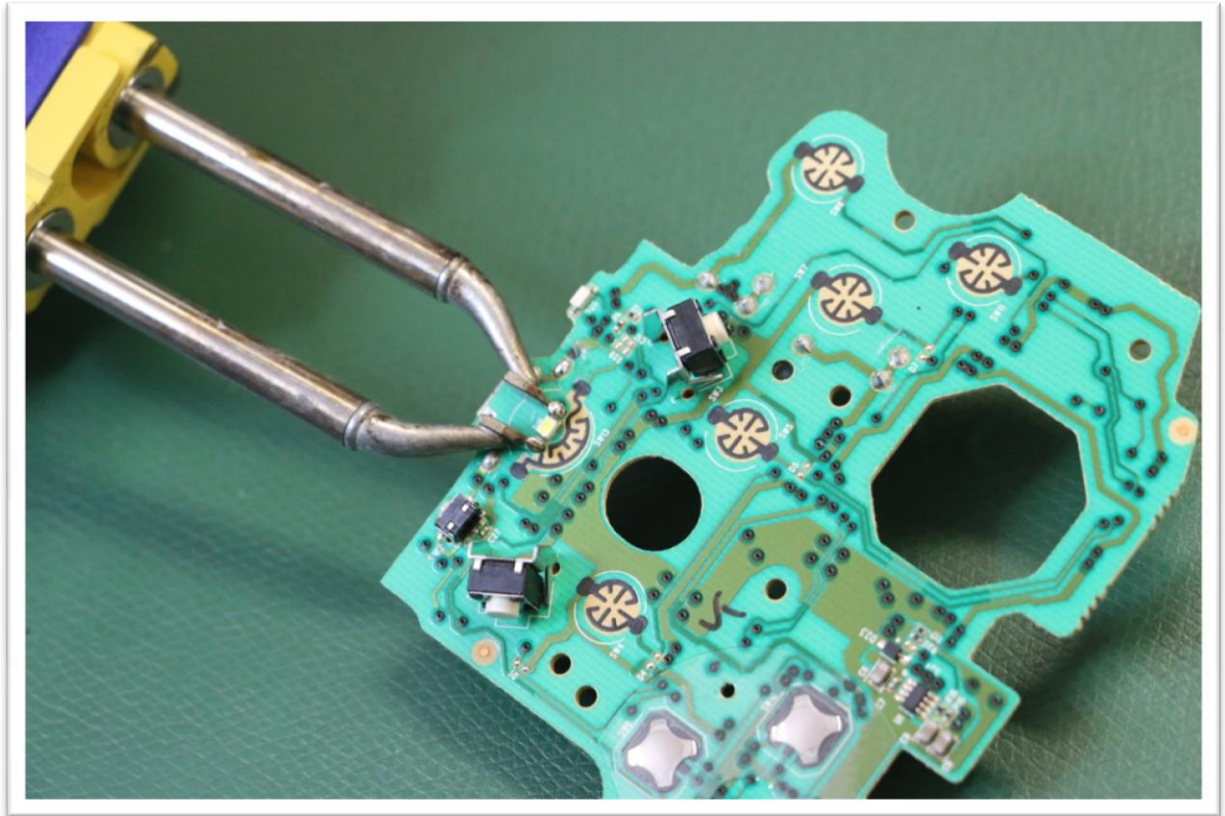
Remove the "boomerang" shaped circuit board to access the second circuit board. Remove the screws shown, then remove the second circuit board as well. Some finesse is required to remove the second circuit board from the shell.



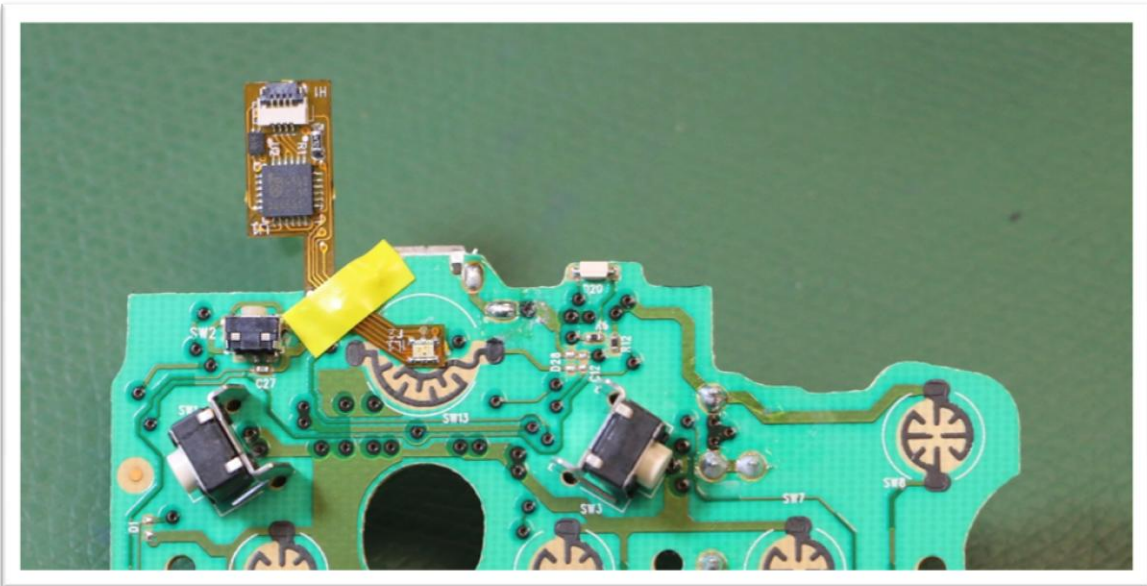
If you are replacing stock buttons (such as the XYBA buttons) with after-market buttons, now would be a good time to replace those buttons.



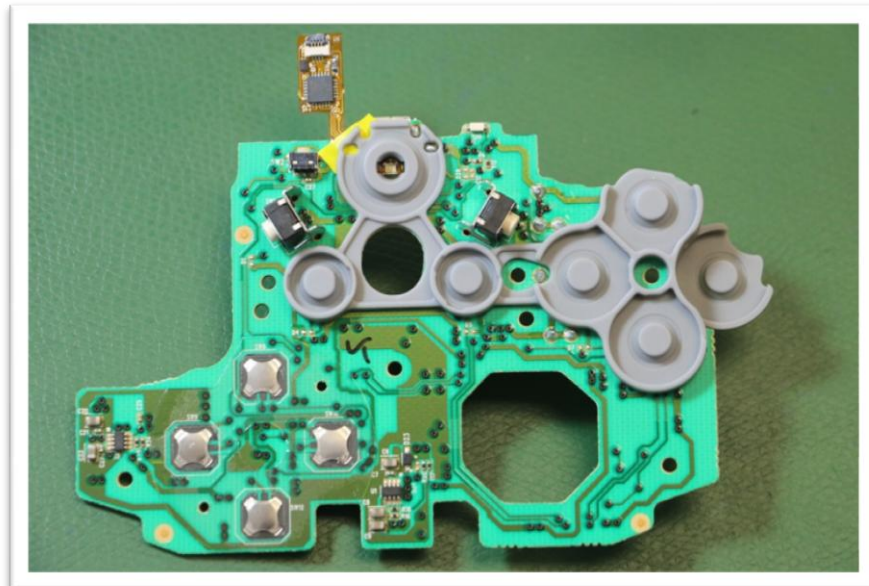
Use a soldering iron to remove the stock guide button LED. "Tweezer" type soldering iron is easiest, but a standard soldering iron can be used. To use a standard soldering iron, just flood the entire LED with extra solder and move the iron back and forth until the LED dislodges.



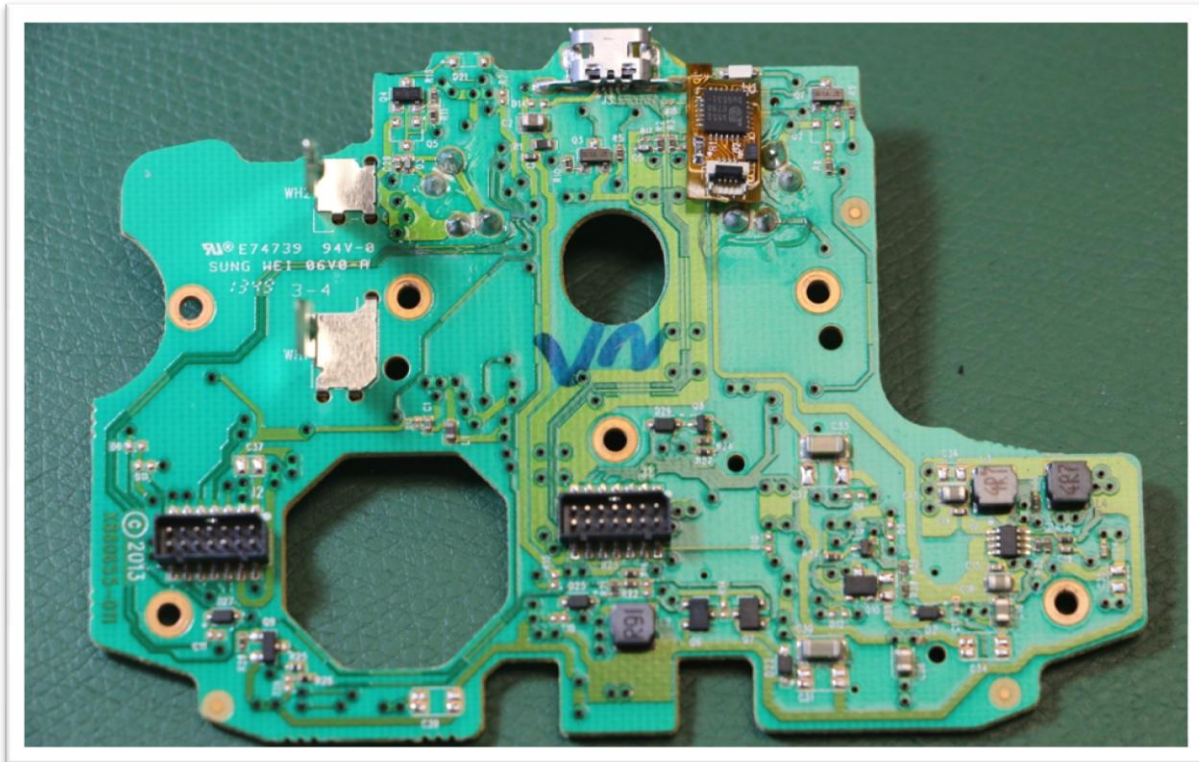
Secure the flexible RGB multi-color guide button mod board in place. We used a strategically placed strip of electrical tape in our example below. Hot glue may be used. However, hot glue should be strategically placed, and used sparingly. Excessive hot glue underneath the mod board will cause the guide button to operate stiffly or to fail to operate at all. If the LED board is secure strategically, the guide button will operate as smoothly as a stock guide button.



The grey rubber piece can be used to check whether or not you have placed the LED in the center. Failure to place the LED to the center can result in a stiffly operating guide button or dim lights.



The orange LED mod board is flexible and can be bent. Gently bent the orange LED mod board around to the back side of the green XBOX circuit board. Secure the mod board in place using either electrical tape or hot glue.



Once the LED mod board is correctly placed, proceed with re-assembling of the green XBOX circuit boards. Re-insert the grey rubber piece and circuit board. Some finesse is required:



Re-install the screws that hold the second green circuit board in place.



Re-install the boomerang shaped circuit board. Install the two screws from before. Re-install the 4 red/black wires for the main rumble motors (red is + and black is -). Re-install the 4 grey/black wires for the trigger rumble motors (grey is + and black is -).



Drill Shell and Install Tac Switches

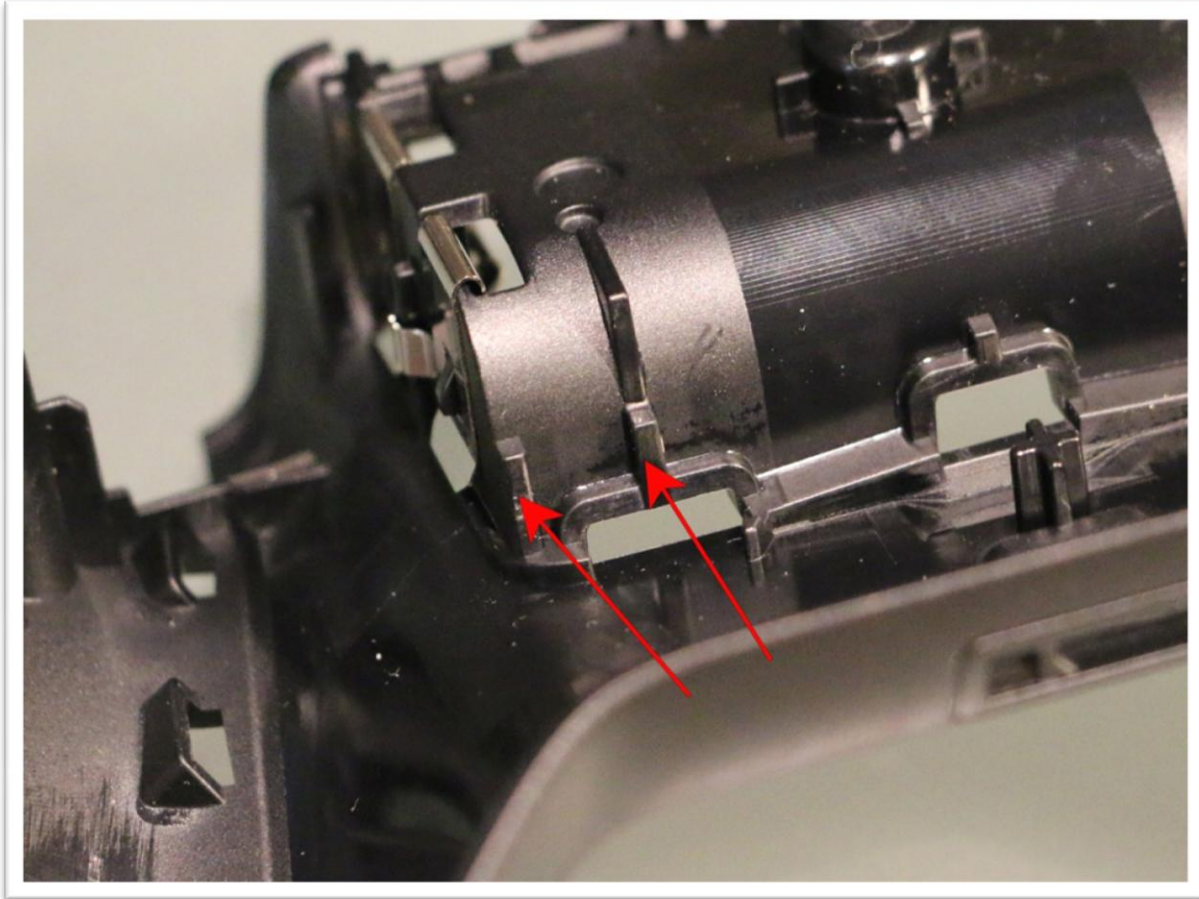
If you wish to take advantage of the remappable button mods, follow the instructions to drill and install aftermarket buttons. Or have fun and try installing your own custom aftermarket buttons.

Drill a hole for, and use hot glue to install, the mod switches as desired. One possible location for the mod switch is illustrated below, but there are many different locations where a mod switch could be installed.



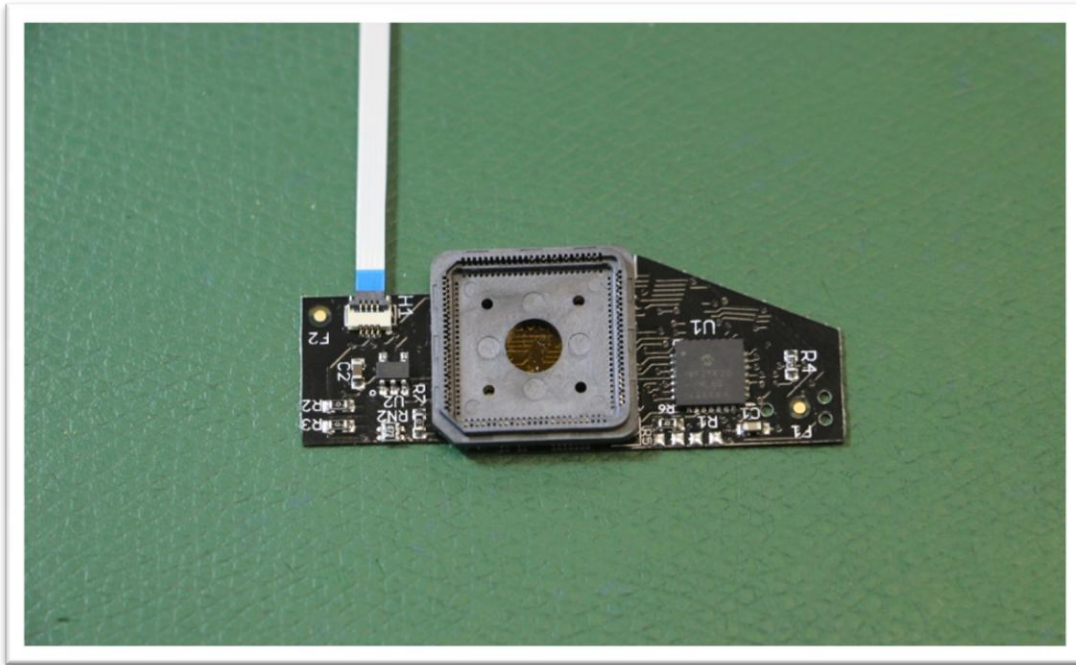
Trim the shell

Use snips to trim off the two plastic tabs indicated in the photo below. These tabs must be removed – failure to remove the tabs could result in the tabs pressing against the solderless modchip and knocking the solderless modchip out of position.

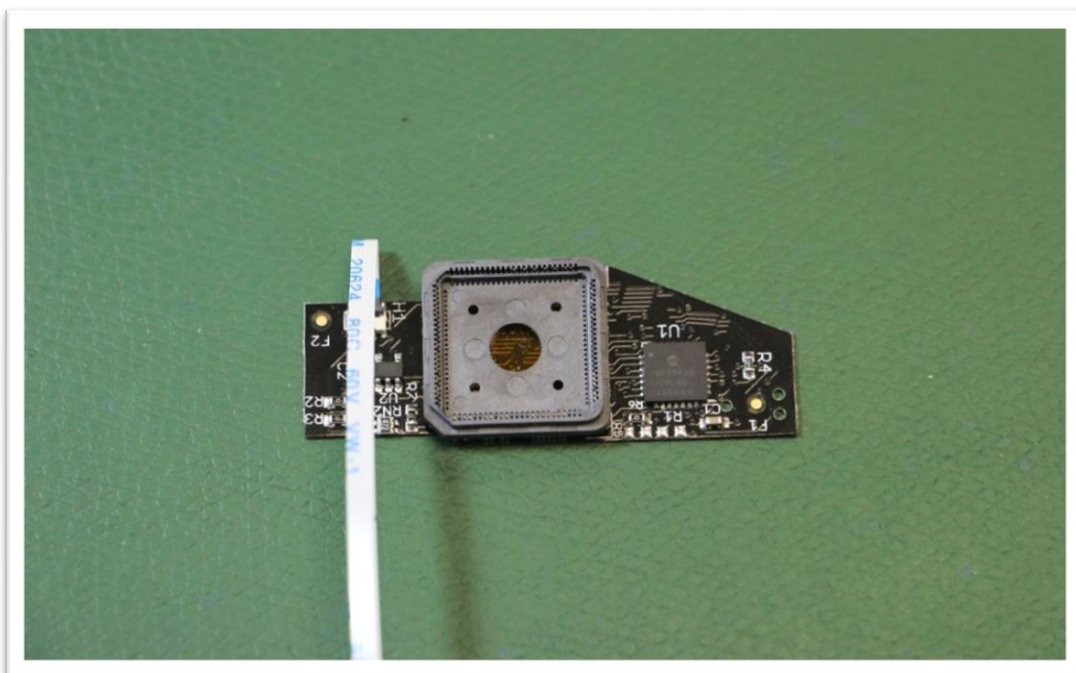


Install the modchip

If you are installing the optional LED mod board, be sure to insert the ribbon cable into the modchip before installing the modchip.



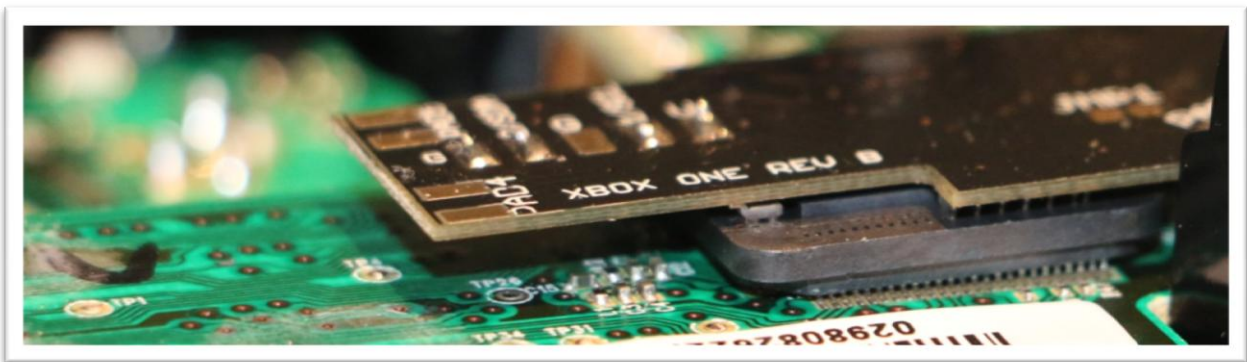
It is also useful to apply a bend to the ribbon cable as shown below:



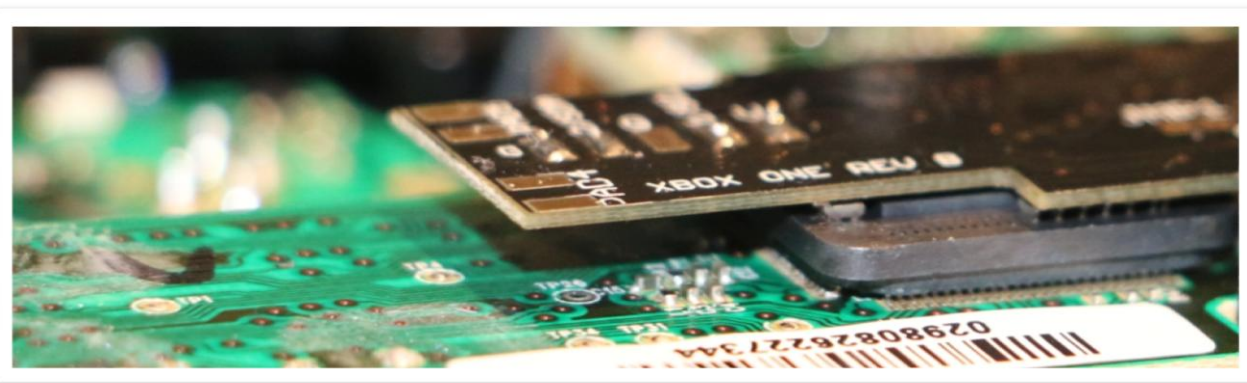
THIS STEP OF THE INSTALLATION IS ABSOLUTELY CRITICAL, AND REQUIRES PATIENCE. FAILURE TO USE FINESSE TO INSTALL THE CLIP COULD RESULT IN DAMAGE TO THE PINS OF THE CPU OR THE CLIP.

Gently lay the modchip's clip onto the main CPU of the controller's circuit board. Without applying pressure, gently move the clip around on the CPU until the clip is covering about ½ of the pins of the CPU on ALL FOUR SIDES.

Note the picture below shows INCORRECTLY POSITIONED CLIP. Notice how the modchip does not evenly cover ½ of the pins on all four sides:



The photo below shows a correctly positioned clip, the clip is evenly covering ½ of the CPU pins on all four sides. Once the modchip is sitting in this position, to a gentle touch it will feel as if it has “locked in”.

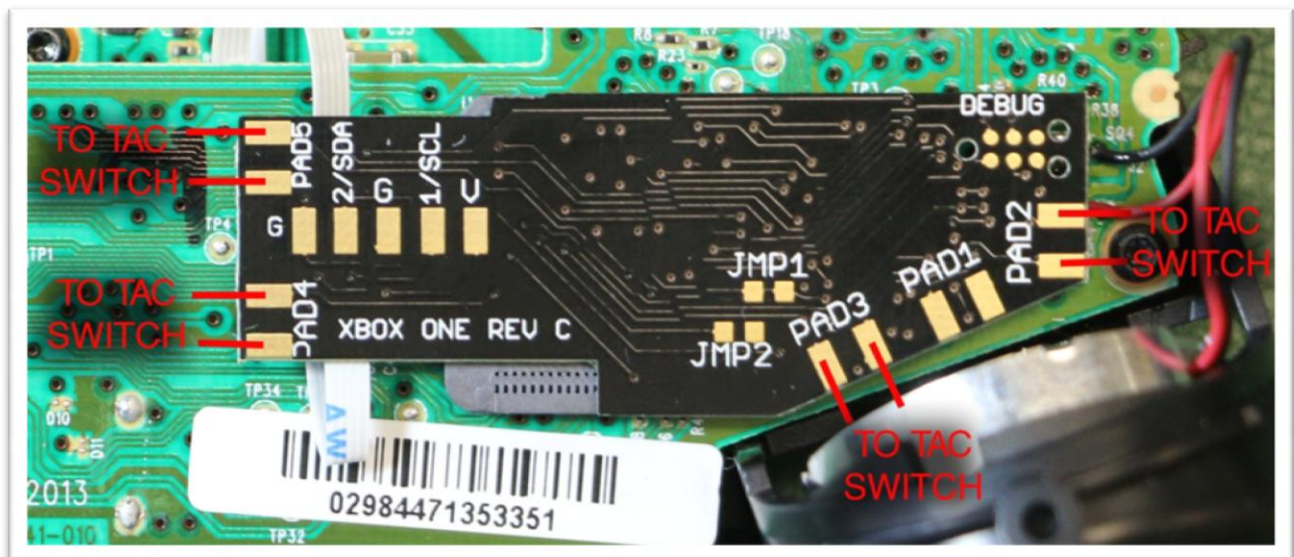


Once the clip is aligned, apply even pressure downward and press the clip onto the CPU.

Install the modchip. If you are installing the option LED mod board, connect the ribbon connector from the modchip to the LED mod board. The ribbon cable can be “tucked away” as shown below:

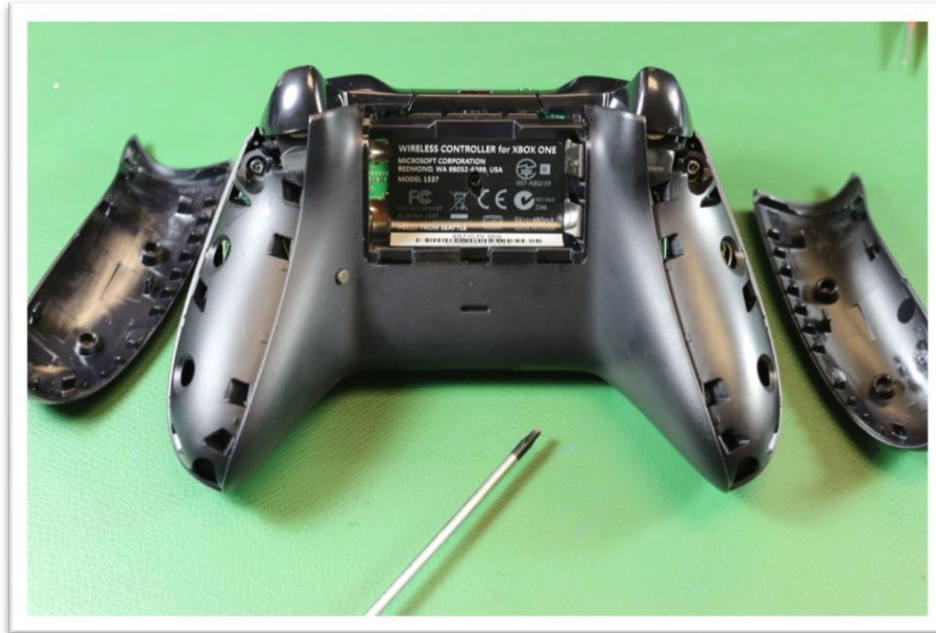


Connect up to four “momentary – normally open” tac switches to “PAD2”, “PAD3”, “PAD4” and “PAD5”:



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.



Setup the Remap Button or LED Mod

The XBOX One controller can be connected to a Windows PC. In order for the modchip to work, the controller must be synced either to a Windows PC (using a standard USB to micro USB cable) or to an XBOX One console.

To enter programming mode: Once synced to a PC or console, hold the VIEW button (the button with three wavy lines) for at least 3 seconds, then release. If you installed the optional LED mod board, the LED will blink blue-green-red to acknowledge your command. The modchip is now awaiting you to program your tac buttons. You may hold the button for longer than 3 seconds, but it must be held for at least 3 seconds.

To program a tac switch: Once in programming mode, hold down any tac button, then tap a stock button to map it to the tac switches. If you installed the optional LED mod board, the LED will blink once to acknowledge your command.

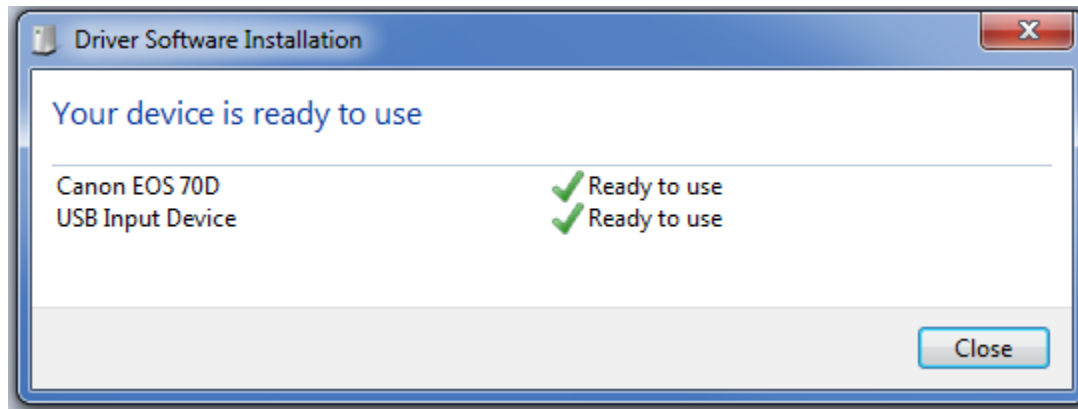
To program the LED color (optional): This step only applies if you installed the optional LED board. Tap the left bumper or right bumper to change the color of the LED mod board. The LED will quickly blink your new selection and then return to white. (Once you exit programming mode, the LED will glow the same color as the selection you've just made).

To exit programming mode: When you are done setting up all your tac switches, hold the VIEW button (the button with three wavy lines) for at least 3 seconds, then release. If you installed the optional LED mod board, the LED will blink blue-green-red to acknowledge your command. This exits the tac switch programming function. You may hold the button for longer than 3 seconds, but it must be held for at least 3 seconds.

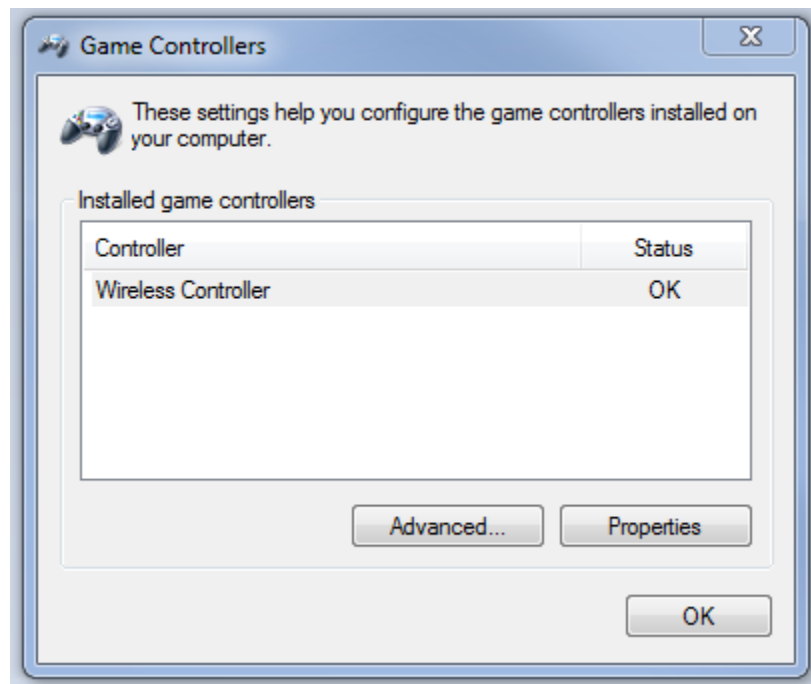
To use the remappable tac switch: After the tac switch is setup to emulate a stock button, just press it – you now have a remapped tac switch that emulates a stock button press.

Test the Controller

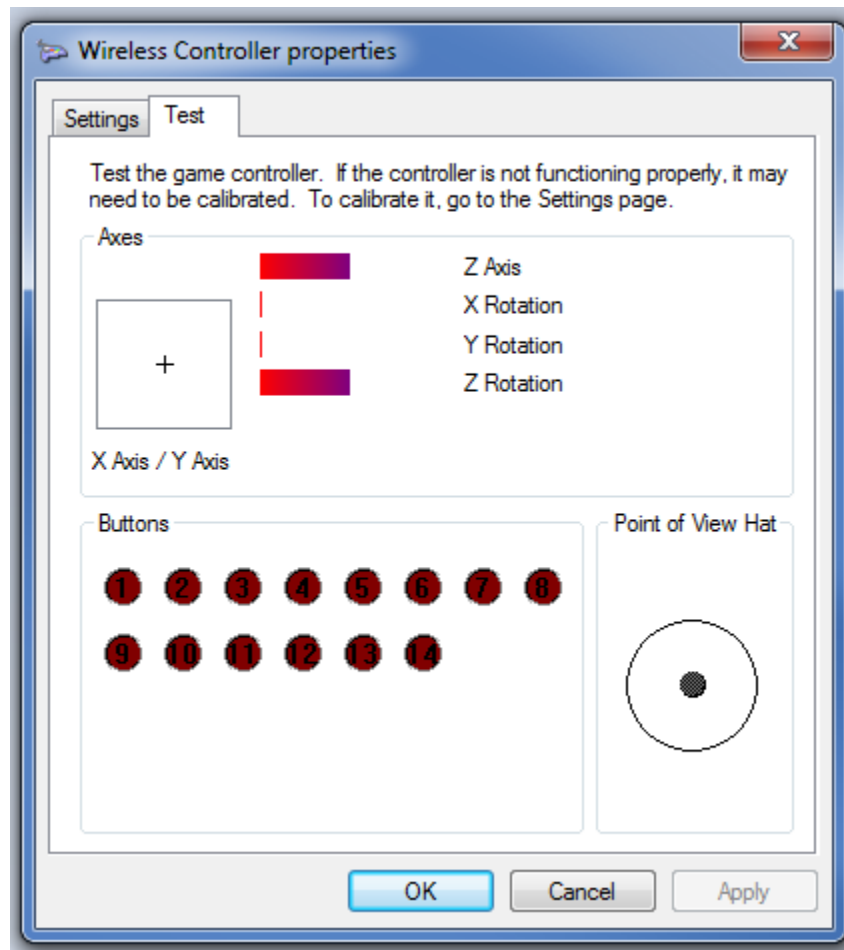
The XBOX One controller can be connected to a Windows PC. In order to connect, you must download the official Microsoft Windows drivers for the XBOX One controller. At the time this manual was written, the drivers could be downloaded at this link: <http://support.xbox.com/en-US/xbox-one/accessories/controller-pc-compatibility>



Once the drivers are installed, on Windows 7 for example, connect your controller by USB to your computer, and then type “Set up USB game controllers” into the search bar to launch the Windows native game controller tool.



The tool can be used to check that all button presses are functioning properly.



Once all button presses have been confirmed working and mods have been tested, it's time to play!