

Installation tutorial for Console Customs

Xbox ONE MaxFire – ONE V2 PCB

This tutorial is designed to aid you in installation of a console customs MaxFire ONE V2 Circuit board.

This installation requires soldering several connections to extremely small confined spaces. We do not advise attempting this installation if you are a beginner at soldering. We recommend reading through all of the instructions and understand them before beginning your installation.

WARNING: Please proceed with this installation at your own risk. We will not be held responsible for any damage to yourself, your controller, your Xbox ONE console or any other equipment.

This tutorial requires opening your controller which will void the warranty of your controller.

Tools needed:

- Torx T8 Security/tamper proof driver
 - Torx T6 screwdriver
- Soldering iron (A 15w/30w from radio shack is about \$12)
- Solder (We use rosin core solder from radio shack so there is no need for flux \$4)
- Wire strippers (that can strip 30ga wire, a 30ga wire wrap tool from radio shack includes a 30ga stripper \$8)
 - Wire cutters
 - Hot glue gun
- 1/8th inch drill bit (optional)
- Small pocket knife or razor blade

Please visit our website at www.consolecustoms.com

For questions or help please email us at support@consolecustoms.com

Sending pictures with support requests will help us to help you quickly!

ATTENTION!!

This guide is only for the original Xbox One controllers which DO NOT have a 3.5mm headset port on the bottom. Please see the image below.

If your controller HAS this port please use this link to download the guide for your controller.

http://www.consolecustoms.com/dl/xone/xbox_one_maxfire-one_v2_install_new_controllers.pdf



First lets start by looking at what is in your kit.

- You should have the following items in your kit
 1. (1) MaxFire-One Circuitboard
 2. (1) Button (optional)
 3. 30ga. Wire
 4. De-soldering braid



Opening the Controller, Part 1

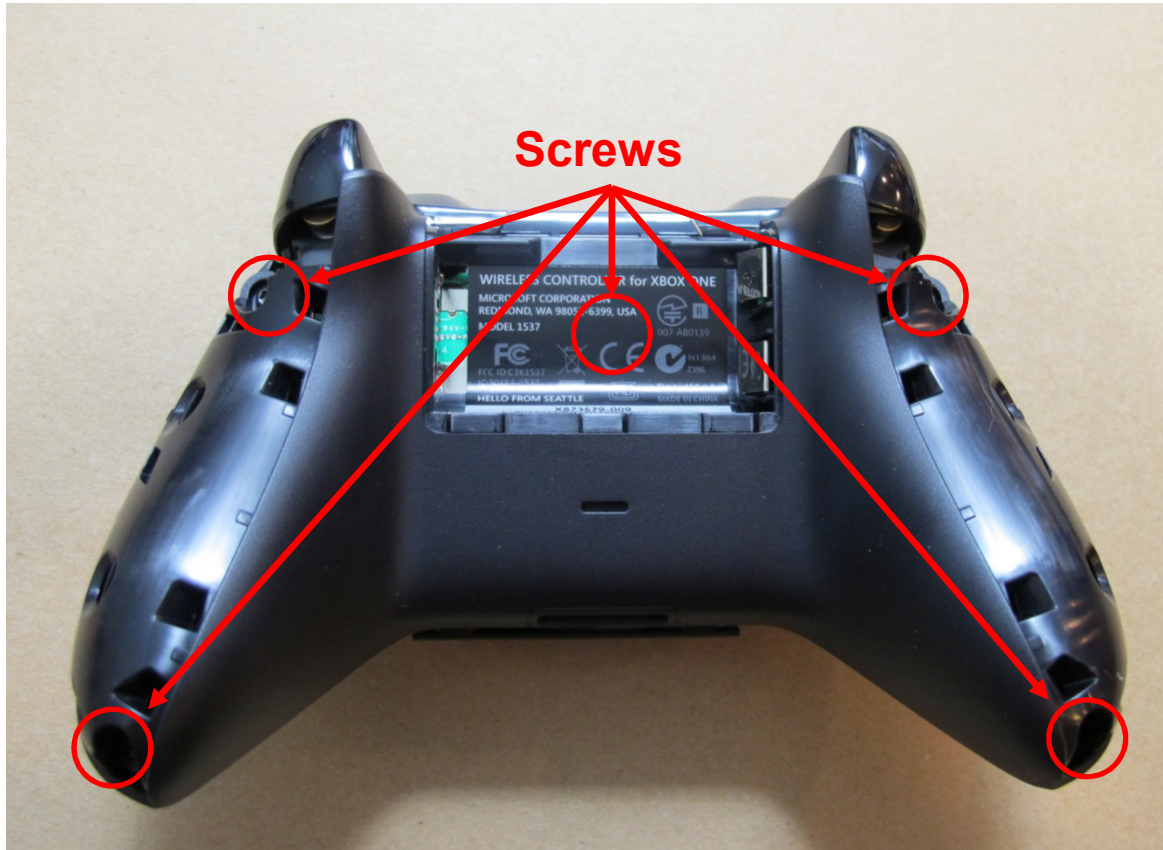
First lets get the controller open. As you will notice there are no visible screws on the controller, Microsoft has hidden them under the hand grips and in the battery compartment. So to start you will want to remove the hand grip covers. You can use a plastic pry tool to do this or just your fingernails which we find to be faster and easier. The clips face inward so you want to pull out and away as demonstrated in the picture below. Don't try to just rip it all the way off from one side you may break clips this way. Just pull till you hear the clips pop off on one side then go to the other side and do the same thing.



Opening the Controller, Part 2

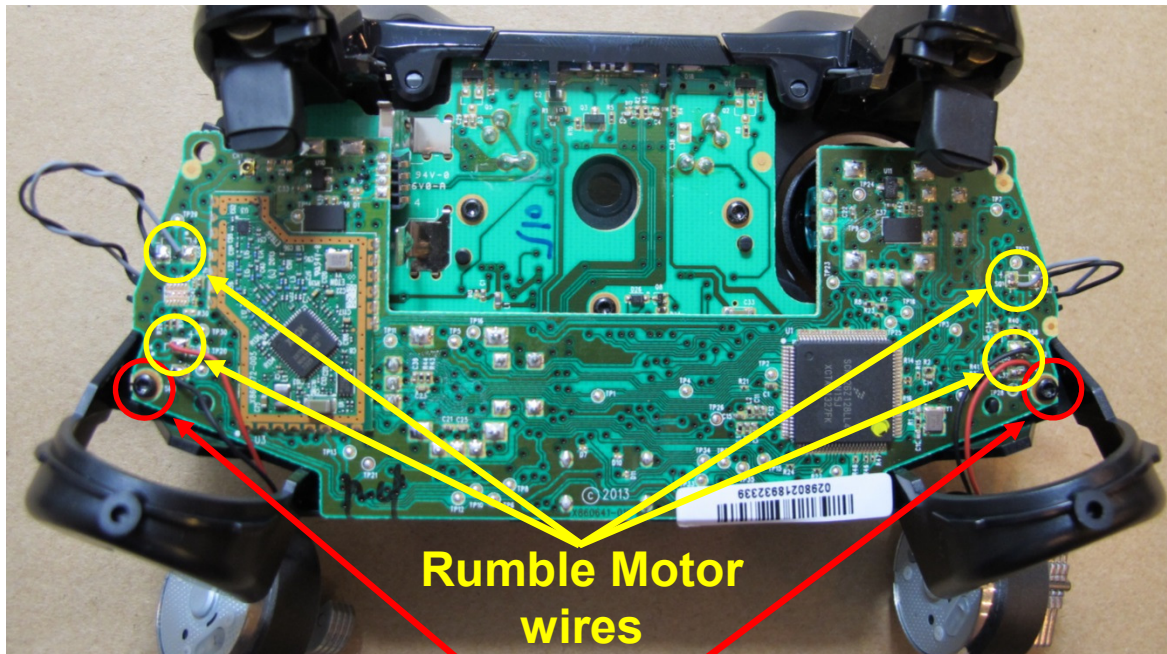
Next You will want to remove the 5 screws that hold the shell together. These are Torx T8 Security screws and have a small post in the center of them which require the use of a Torx T8 security screwdriver to remove them.

With the screws removed both the front and back halves of the shell are easily removed.



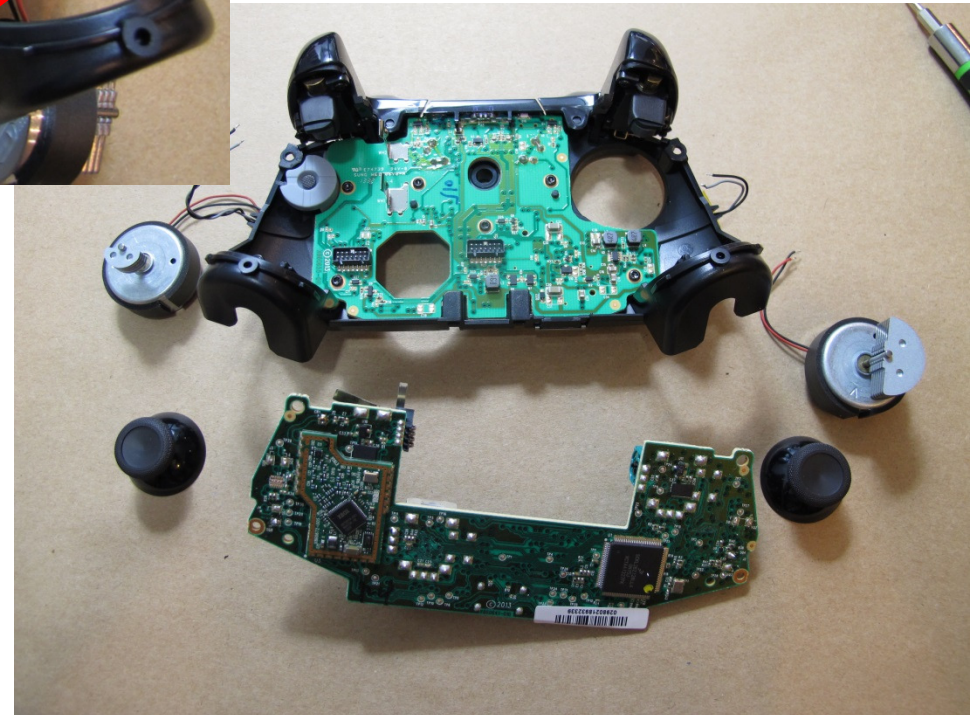
Opening the Controller, Part 3

With the shell apart you will see two circuit boards which have two connectors hooking them together. We will be mainly working with the Smaller “U” shaped circuit board that is on the back. To remove this you will want to remove the two Torx T6 screws on the lower right hand corners and de-solder the wires for all 4 rumble motors. With all these removed the back circuit board can be lifted out of the controller. because the two boards are plugged in together it can take a little bit of effort so separate the boards.



**Rumble Motor
wires**

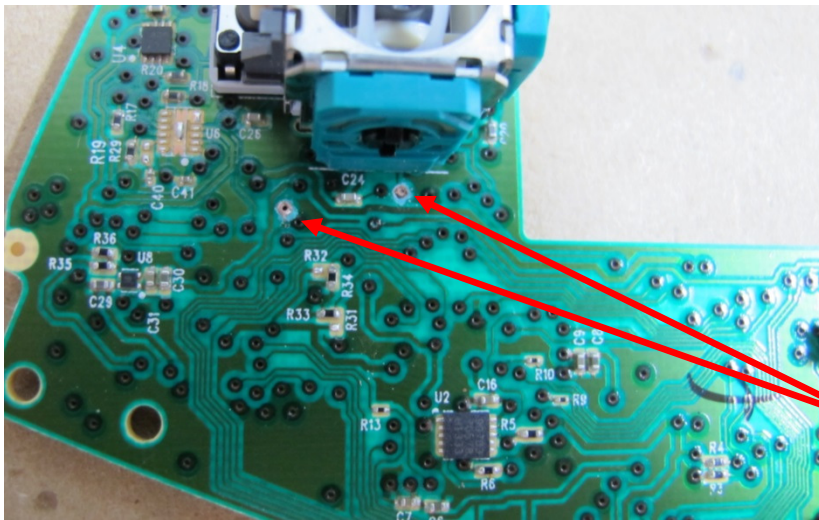
**Torx T6
Screws**



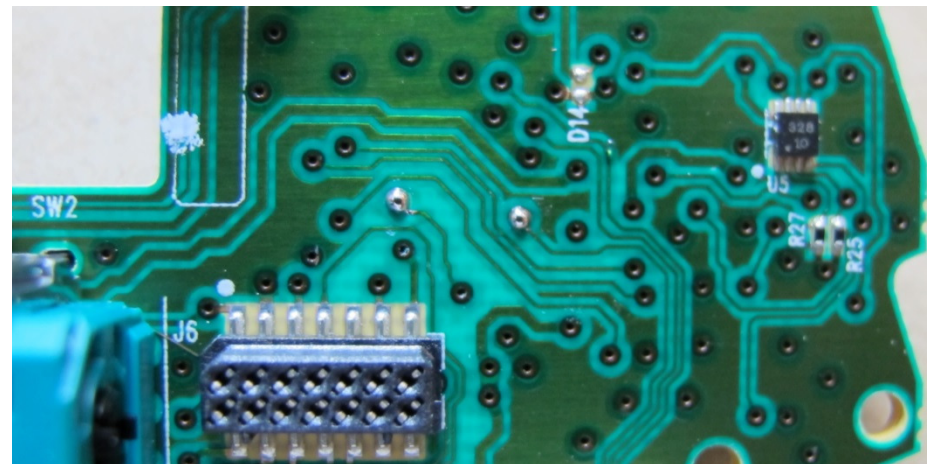
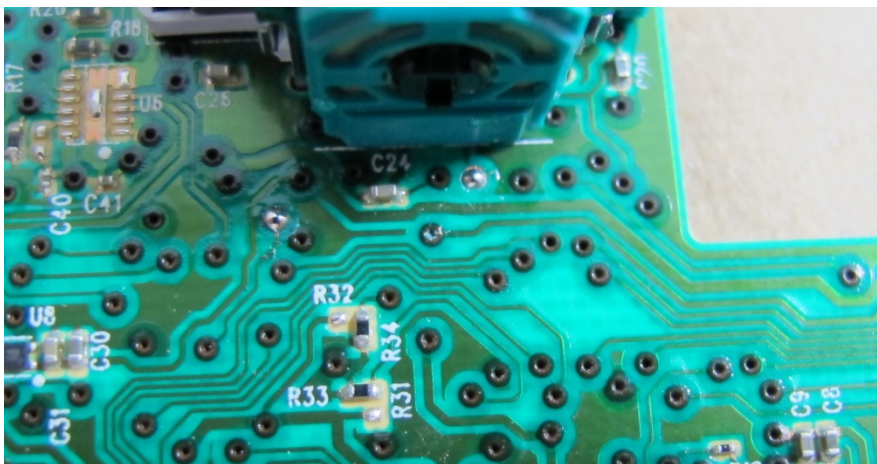
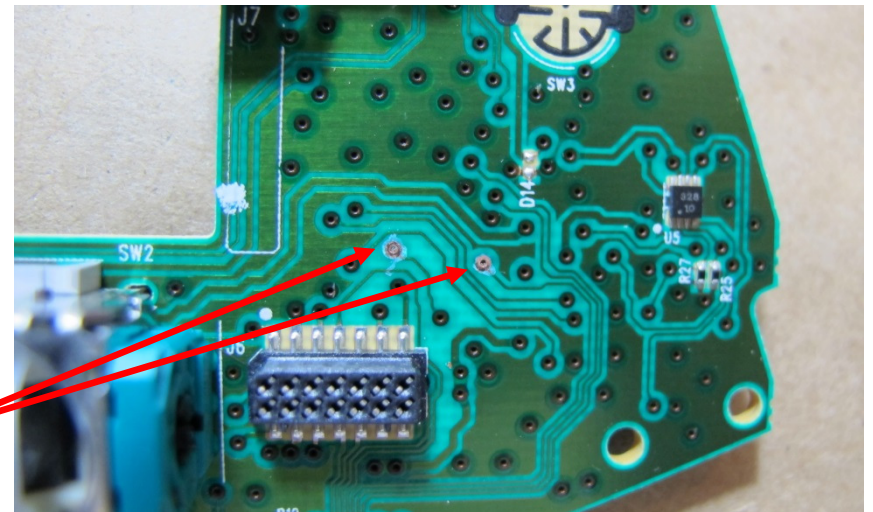
Preparing the Connections, Part 4

Now you need to take the “U” shaped board and prepare 4 of the vias before starting to solder the mod on the circuit board. The vias have a green coating over them and must be removed. The easiest way to do this is with a pocket knife or other knife that has a curved tip. Exacto blades do not work well because of the pointed tip. Use the knife to scrape across the via with light to medium pressure. Until you see the bright shiny copper. DO NOT place the tip of the knife in the hole and twist, This can cut through the copper and cause the button to stop working all together. The pictures below show the 4 vias which need to be scraped. You can also lay the Maxfire-One board on the controller to help find the 4 vias you need to scrape.

Once the vias are clean, tin them with some solder. This will help you to know they are scrapped well enough and also aid in soldering to the board. The bottom pictures show the vias tinned with solder.



Vias



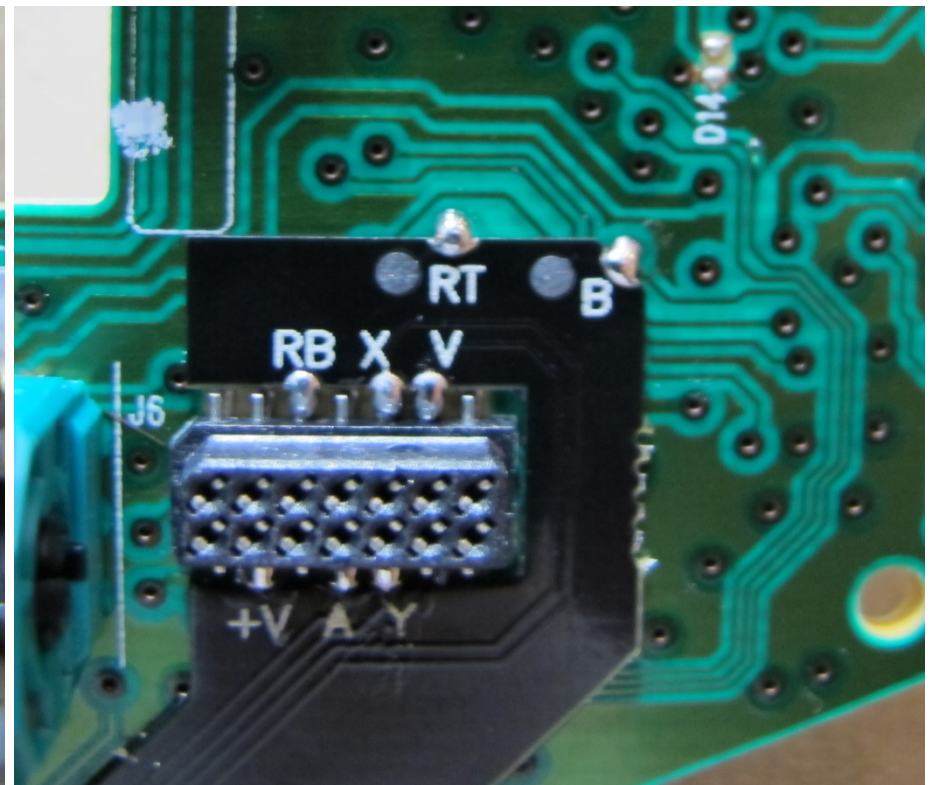
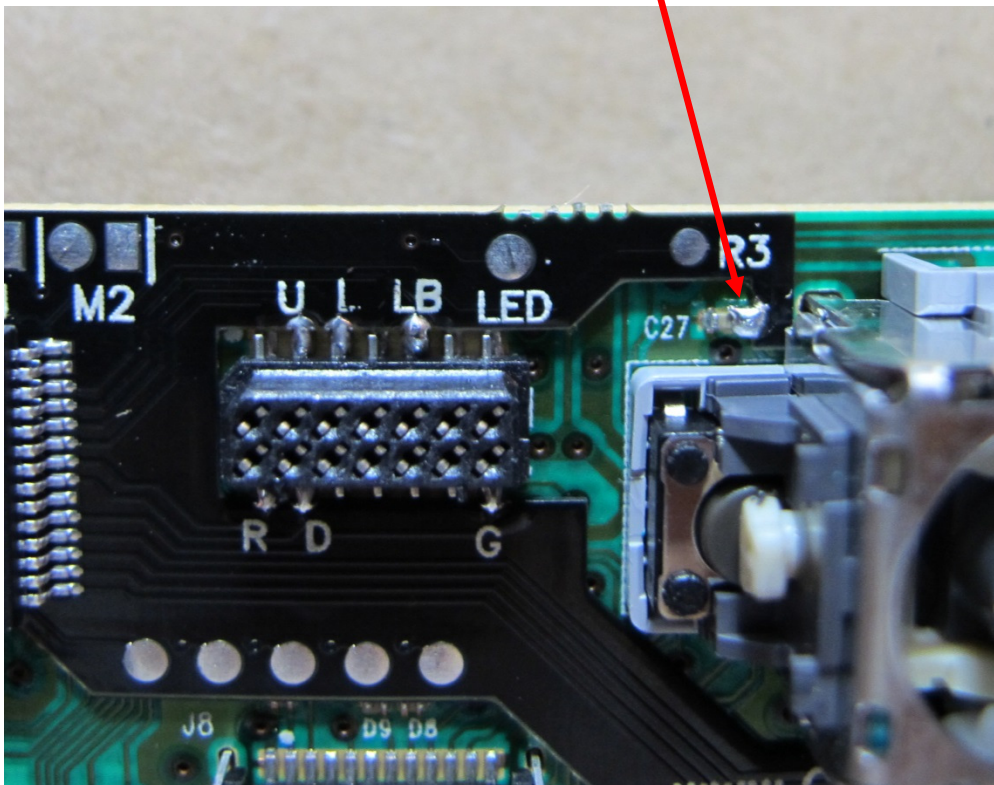
Making the solder connections, Part 5

Now that you have the vias ready you can place the MaxFire-One board in the controller. You will see there are 4 solder pads along the edges that match up to the vias. There are also solder pads that line up to legs around the two connectors. Make sure everything is lined up and make your first solder connections. We find it easiest to solder one of the 4 vias first. Once this is done the board will stay in place and you can make all of the other connections. You have the 4 vias, then 12 solder points to the legs of the 2 connector plugs and one solder connection for R3 which solders to one side of a capacitor, this is just above the right thumbstick.

Below are some close ups of the connections.

Tip: soldering to the legs of the connector can be difficult as they are small and close together. We have found that it works best to place the tip of your soldering iron on the side of the leg so that it is touching the side of the leg and also the pad on the MaxFire-One board. Wait about 3 seconds for the leg to heat up from the soldering iron, then introduce the solder and it should flow nicely to the leg and board.

If you bridge to legs together with solder see our troubleshooting section for using the desoldering braid to remove the solder.

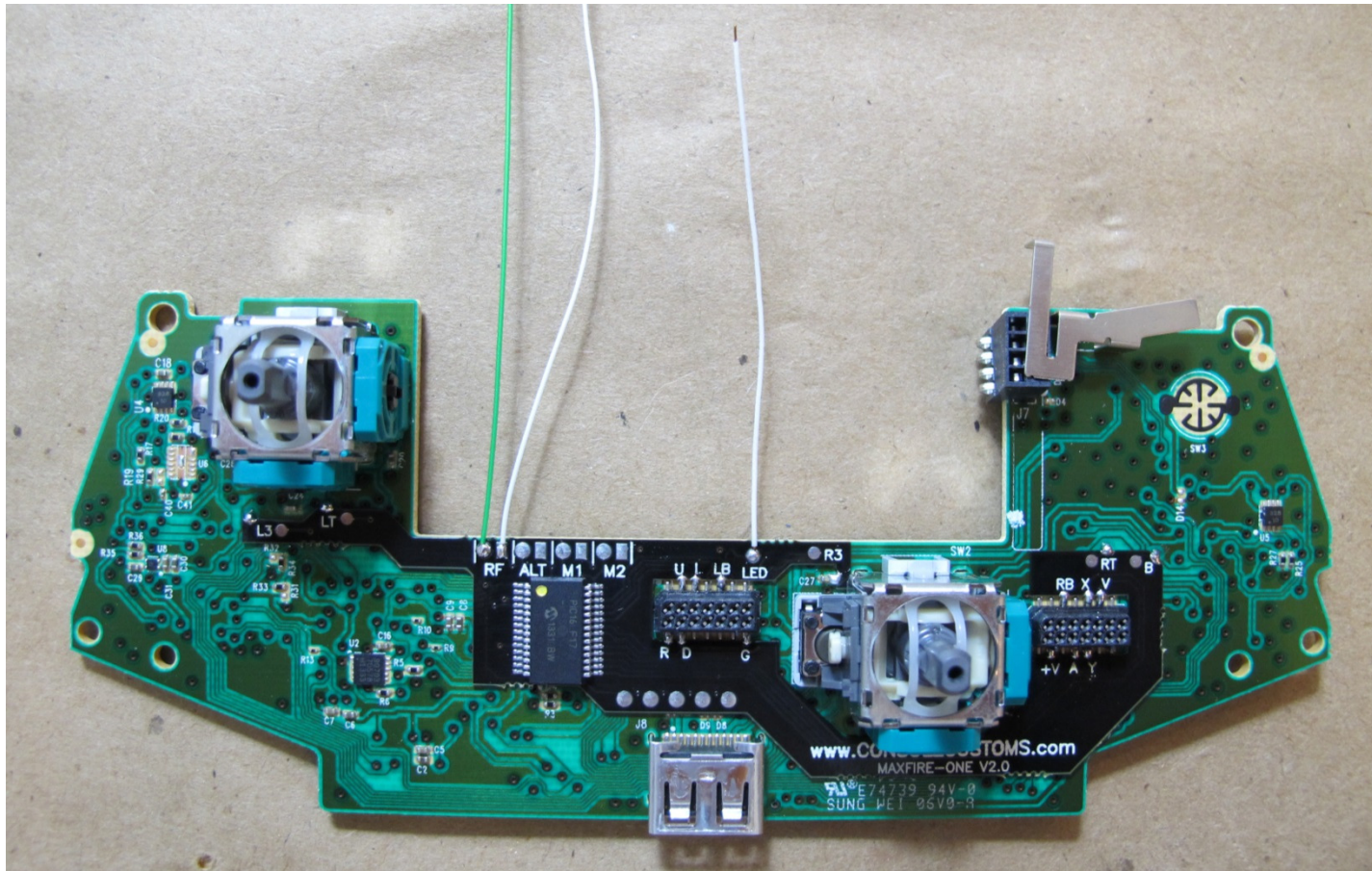


LED and optional buttons wires, Part 6

Now You only have one more required connection to make which is for the LED. To make this connection you need a small, approximately 2 inch long piece of wire. You will want to solder this to the pad labeled LED before placing the circuit board back in the controller.

You will also want to solder wires for any buttons you would like to add. Buttons are optional but offer some additional great features. Up to 4 buttons can be added. As they are labeled on the board they do the following. The RF button pads allow you to use a button instead of Left on the D-pad for enabling rapid fire and other features. The ALT pad allows for adding a button to use instead of UP on the D-pad for enabling alternate features. The M1 and M2 pads allow for adding Programmable Reflex remapping buttons, the buttons can have any controller button mapped to them so you can have a Jump, crouch or any other button on the back of the controller so you do not need to take your thumb off the thumbstick to perform these actions.

For any of these buttons you will want to add wires that are around 5 inches long before putting the board back in the controller.

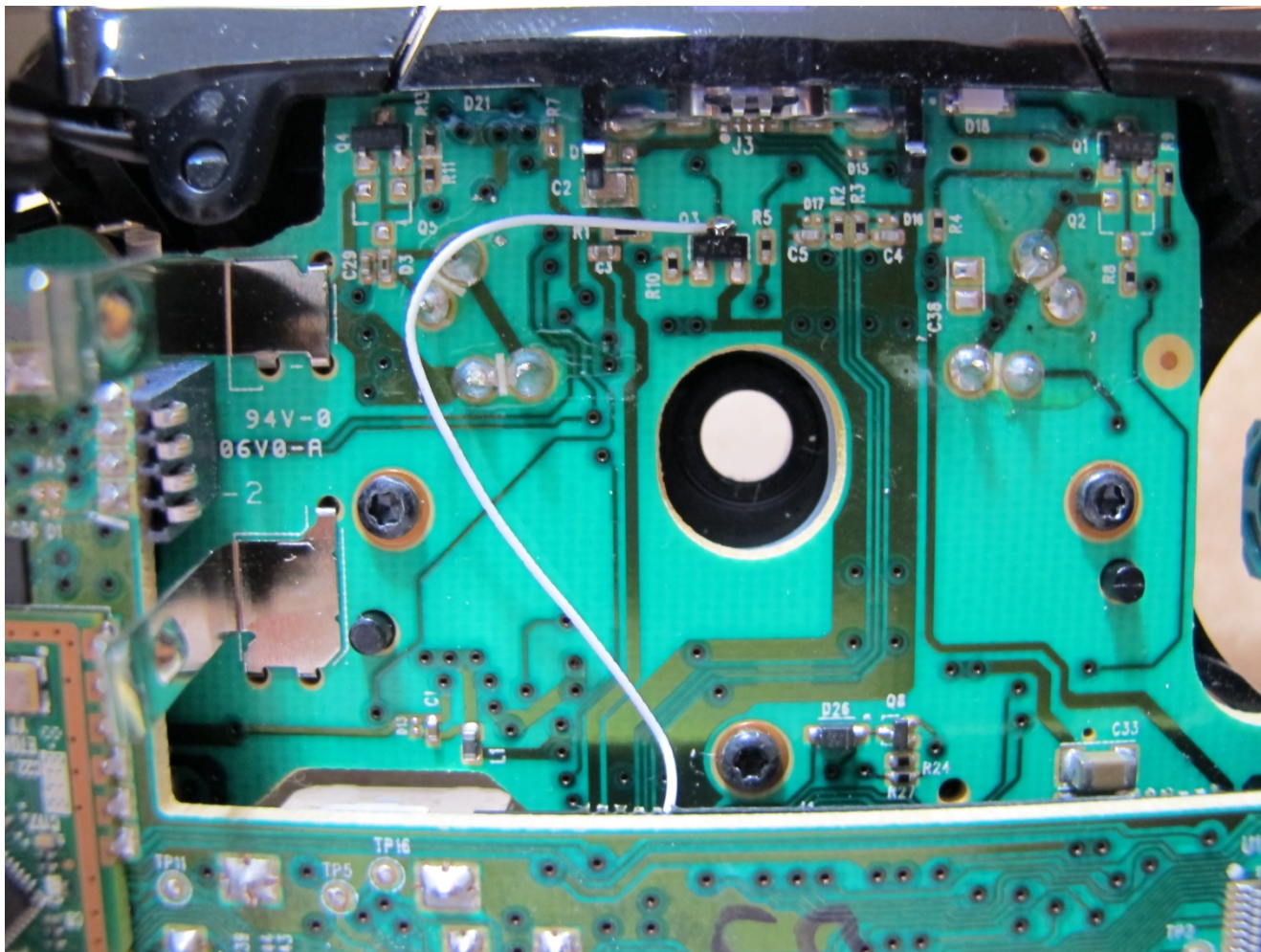


LED connection and reassembly, Part 7

Now place the board back in the controller and solder the LED wire as shown in the picture below.

At this point you are done and just need to reassemble the controller unless you would like to add buttons. See the next page for adding buttons.

Don't forget to reinstall the Torx T6 screws in the "U" shaped board and resolder the Rumble motor wires. The board is labeled with + and - symbols for the rumble motors, your Gray or red wires are the + connections and the black wires are the - connections.



Complete.

The full user guide for this mod can be found at this link

http://www.consolecustoms.com/dl/xone/max-one_v2_manual.pdf

If you have any questions please email is at support@consolecustoms.com

Installing the optional Buttons.

To install buttons, first take the button and remove one pair of legs. A pair of legs are on the same side edge of the button (see image below). With the two remaining legs you will solder the wire from the board to the button.

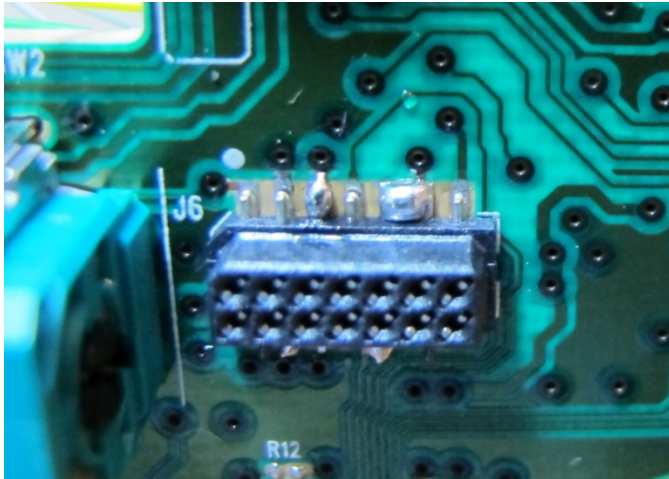
To mount the button drill a 1/8th inch hole in the shell in your desired location, normally somewhere on the back of the shell. Just be sure before drilling that when closing the controller the button will fit and not make contact to the circuit board or other shell components. There is a lot of open area in the Xbox One shells so it should not be hard to find a location that works for you.

After drilling the hole glue in the button using HOT GLUE, do not use super glue as super glue can seep into the button can cause it to stop working. Most thicker 2 part epoxies will also work if hot glue is not available.



Troubleshooting.

With the small connections in the controller a common problem can be bridging together legs of the connectors as shown below.



If this happened you can do two things.

1. Try and swipe the solder away between the pins. This does not always work but works best with a clean soldering tip and first allowing the solder to cool. If you keep trying this method on solder that is hot it will just become more fluid and less likely to separate.
2. Remove the excess solder and start again. There are several ways to remove solder such as using a solder sucker or desoldering braid. We prefer desoldering braid as it is easier to work with and can be purchased at electronics stores like Radio shack for around \$3 - \$4. As shown in the picture below you just take the braid and place it over the solder you want to remove then place your soldering iron on top of the braid. Allow a few seconds for the iron to heat the braid and the solder and you should see the solder wick into the braid. Then just quickly remove the iron and the braid leaving nice clean connections.

