

# Installation tutorial for Console Customs PS3

## Rapid fire Microchip for Sixaxis and Dualshock 3 controllers

This tutorial is designed to aid you in installation of a console customs rapid fire microchip. There is no one way to install this chip but this method is what I have found works the best and allows the chip to fit inside the controller.

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

**Please proceed with this installation at your own risk. I will not be held responsible for any damage to yourself, your controller, your PS3 console or any other equipment.**

### Tools needed:

- Small Phillips head screwdriver
- Soldering iron (I use a cheap 15w/30w from radio shack about \$15)
- Solder ( I use rosin core solder from radio shack so there is no need for flux)
- 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
  - 3/16 drill bit (or close to it)
- Small pocket knife or razor blade (optional but helpful)

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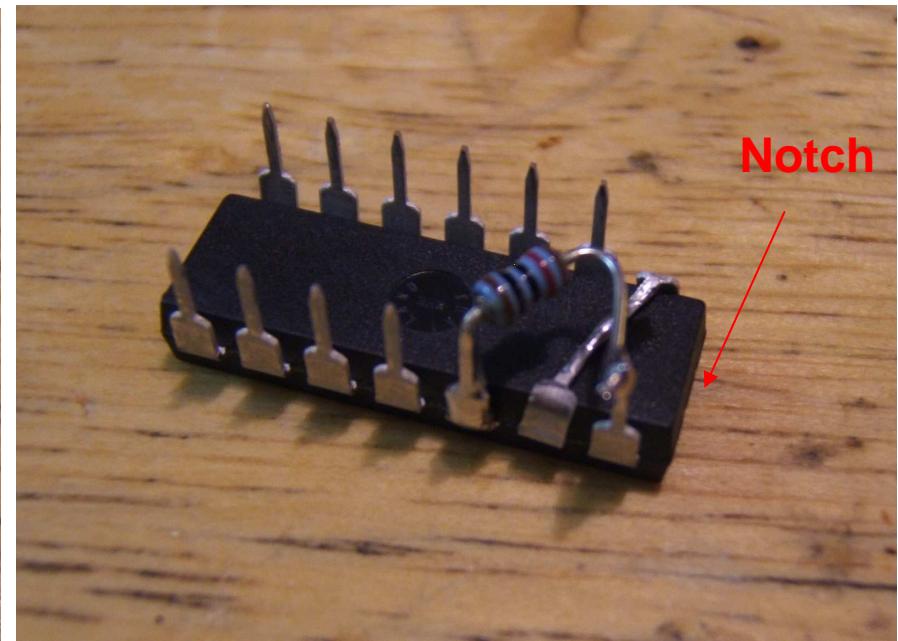
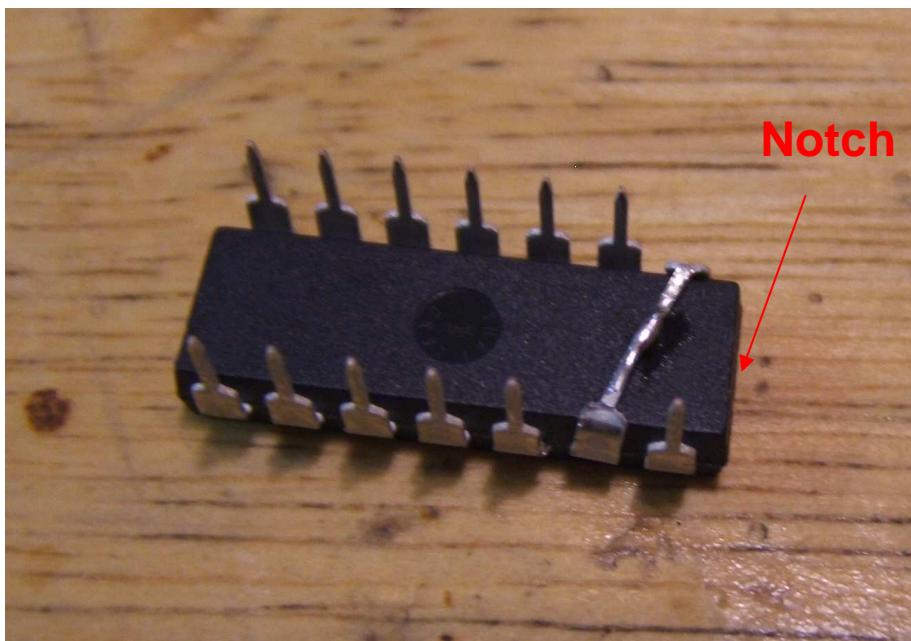
Step 1: Before we even get into the controller we are going to assemble the chip and attach all of the wires and resistor.

- You should have the following items in your kit
  1. (1) 14 pin PIC microcontroller
  2. (1) 14 pin logic switch
  3. (1) 10k resistor
  4. (1) tactile switches
  5. 30ga. Wire ( I include multiple colors to follow this tutorial)

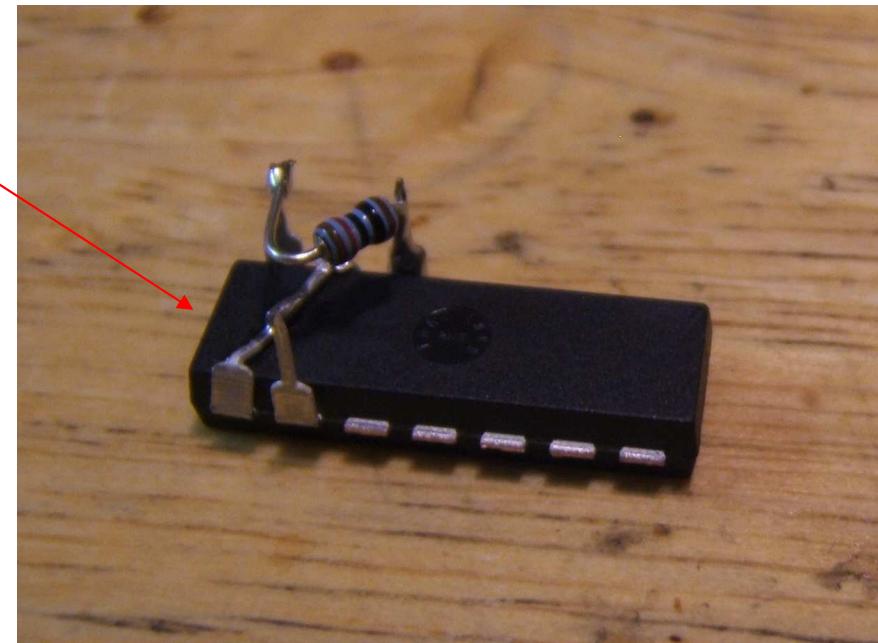
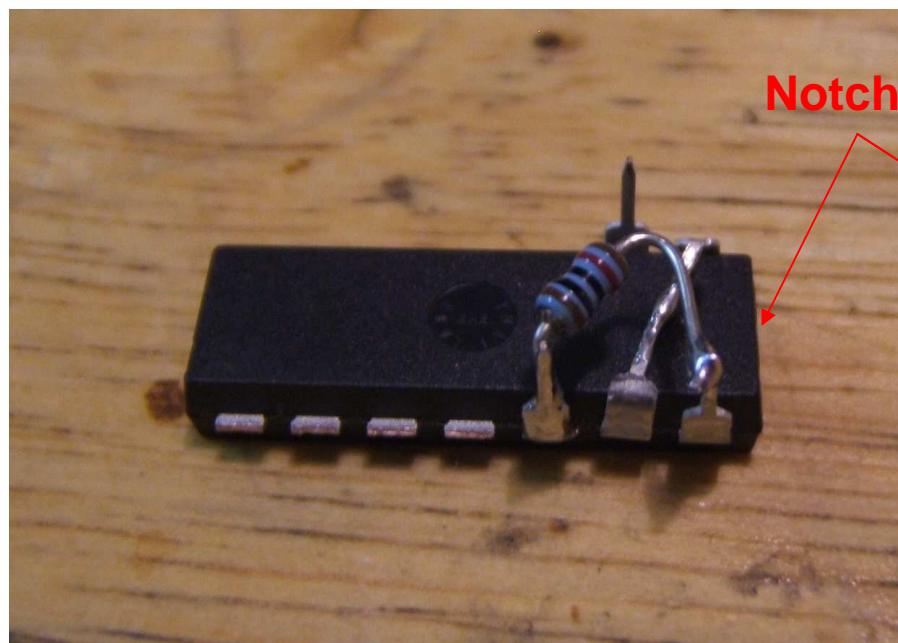


Step 2: We will start by taking the PIC chip and putting it on its back, also called (dead bug). Note the location of the notch on the top of the chip.

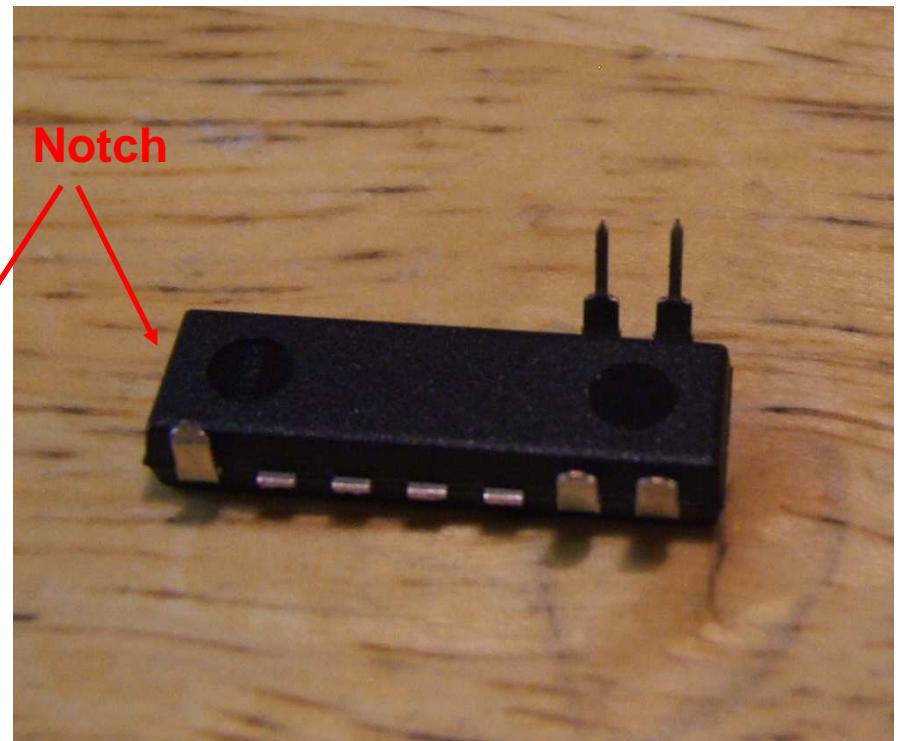
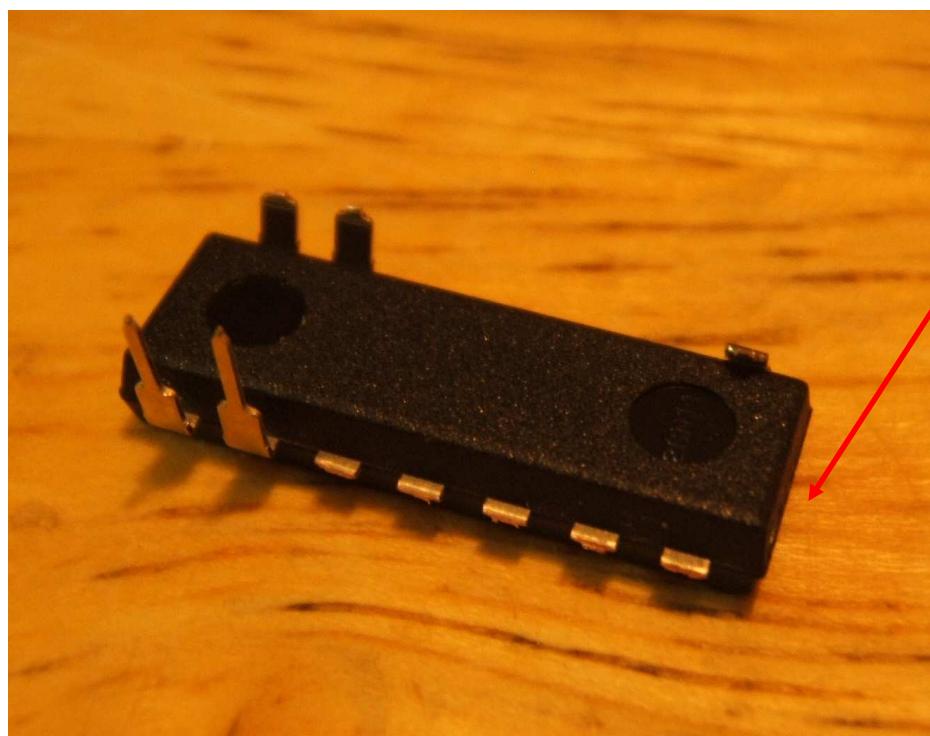
- We will take pin 2 and pin 14 and bend them both toward the center and solder together.
- Then take your resistor and cut the legs short and solder it in-between pins 3 and 1.



Step 3: Next we will remove the unneeded legs from the PIC chip. This will help with fitting the chips into the controller.

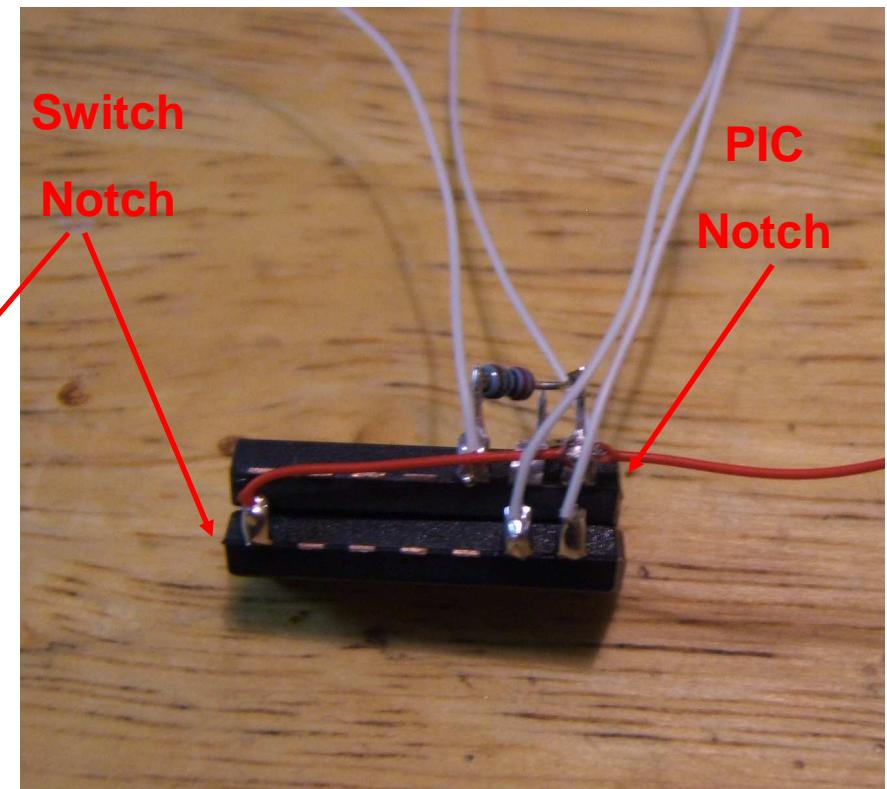
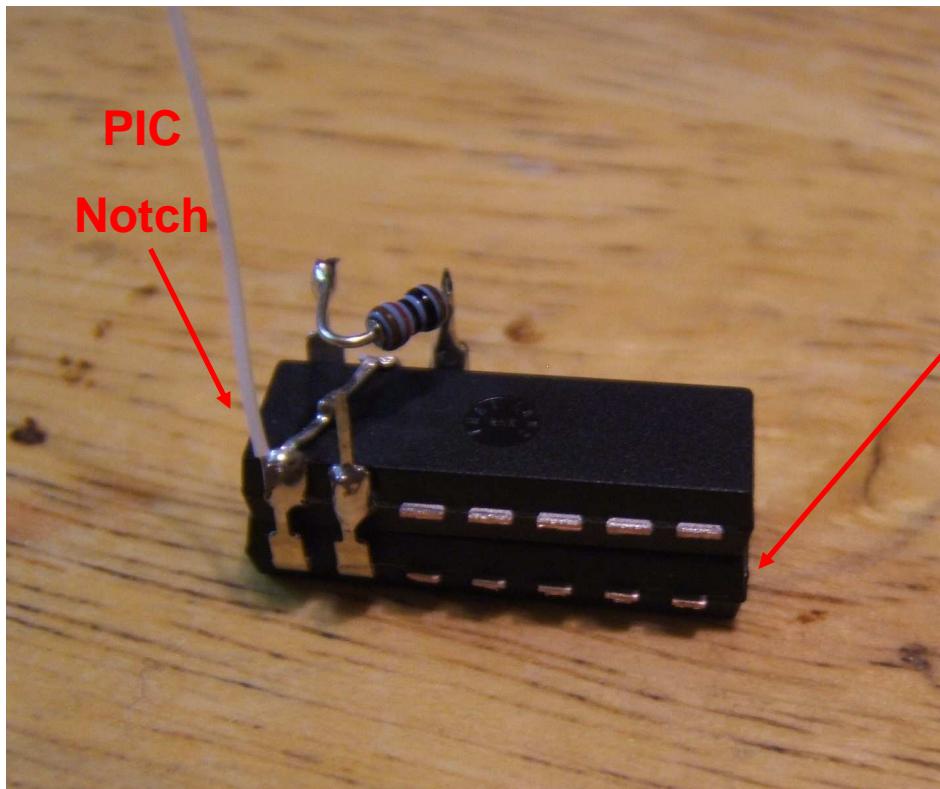


Step 4: Next we will remove the unneeded legs from the logic switch. Some of the legs have only the thin section removed. Use the images below to see which legs should be removed. Note the position of the notch that is on the top of the switch.



## Step 5: Putting the chips together and attaching the wires

- The chips will go together both on their back with the notch's opposite each other.
- With the chips together (Switch on the bottom and PIC on top) solder legs 6 and 7 of the switch to legs 13 and 14 of the PIC.
- Attach a wire about 2" long to pins 7 of the switch and pins 14 and 2 of the PIC that are already soldered together. This will be the ground wire as shown in the left image.
- Next attach a red wire from pin 8 of the switch to pin 1 of the PIC with an extra 2" of wire. This will be the power wire.
- Then attach wires to pins 13 and 14 of the switch about 3" long each. These will connect to the trigger connections in the controller.
- Finally attach a wire to pin 3 of the PIC (where your resistor is attached). This should be about 5" long and will goto the button we will install later.



## Step 6: Opening the controller

- Remove the 5 screws indicated below.
- The controller also has a clip holding it together in-between the two thumbsticks at the bottom. The left image shows approximately how the clip is located inside the controller. You will want to use a small flat head screw driver or a knife to push on the red part to open the controller.

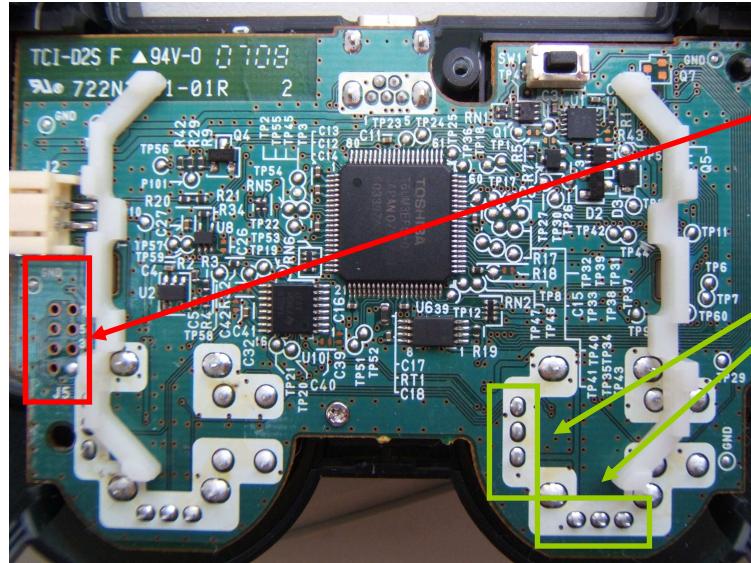
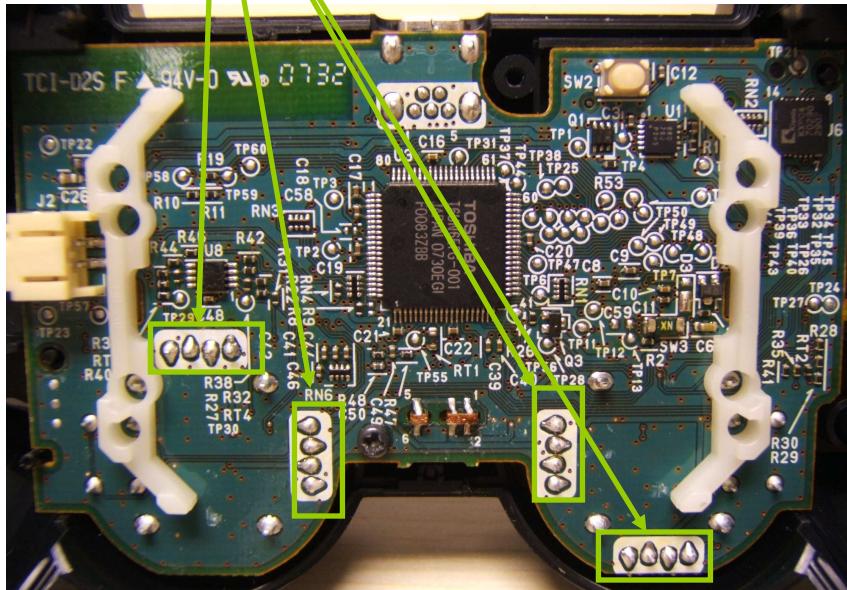


# STOP!

**There are now two different PCB layouts for the sixaxis controller. The new style is very similar to the dual shock 3. All three are shown below. The solder points for each type will be shown on the follow step.**

### **NEW Sixaxis PCB style**

– This is identified by the Four solder points in the horizontal and vertical axix for the thumbsticks



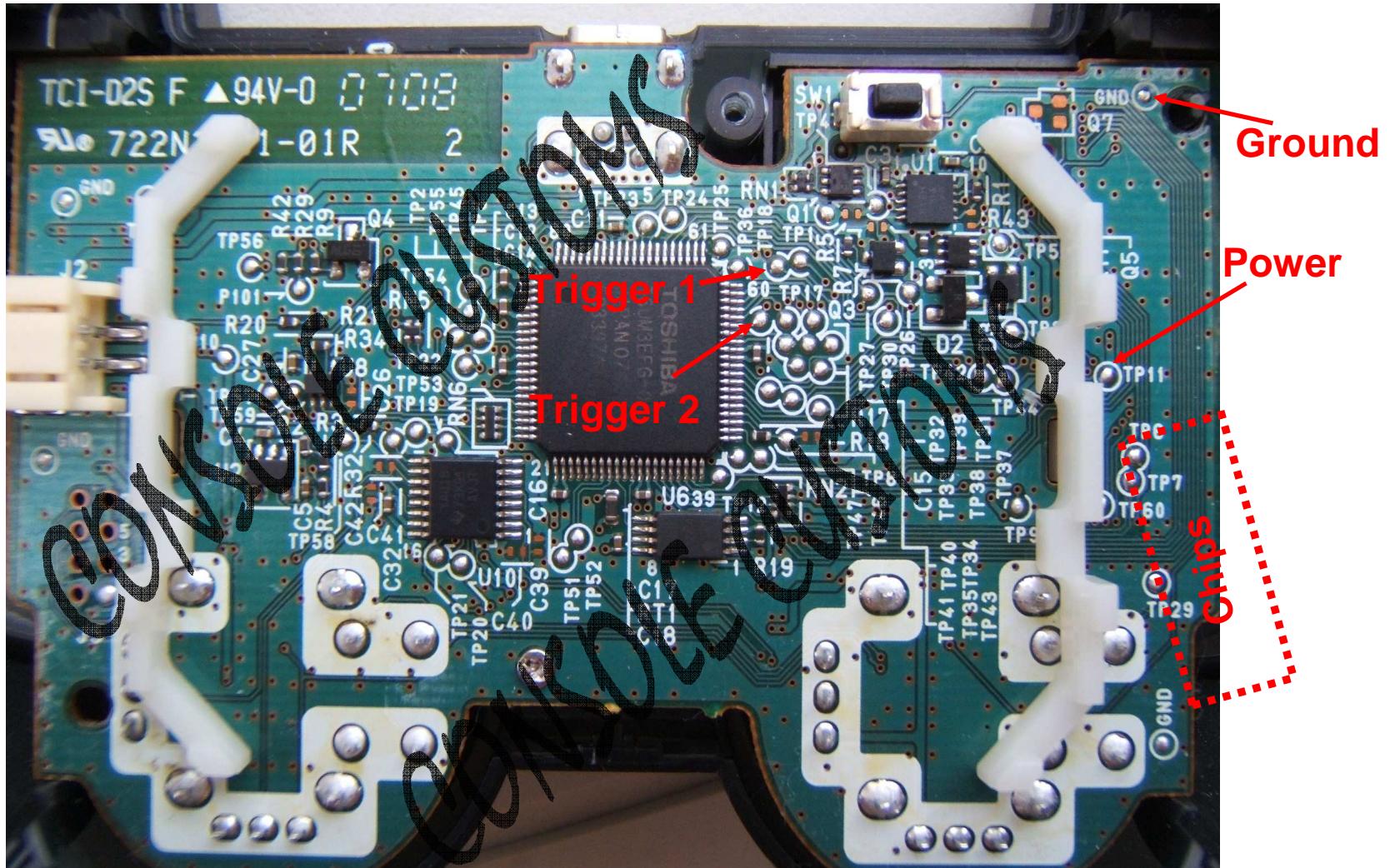
**OLD Sixaxis PCB style** – This is identified by the **8 solder points** directly under the battery plug. This style also has only **three solder points** in the horizontal and vertical axix for the thumbsticks

**Dualshock PCB** – This is identified by the addition of the rumble motors and also the **Four solder points** in the horizontal and vertical axix for the thumbsticks



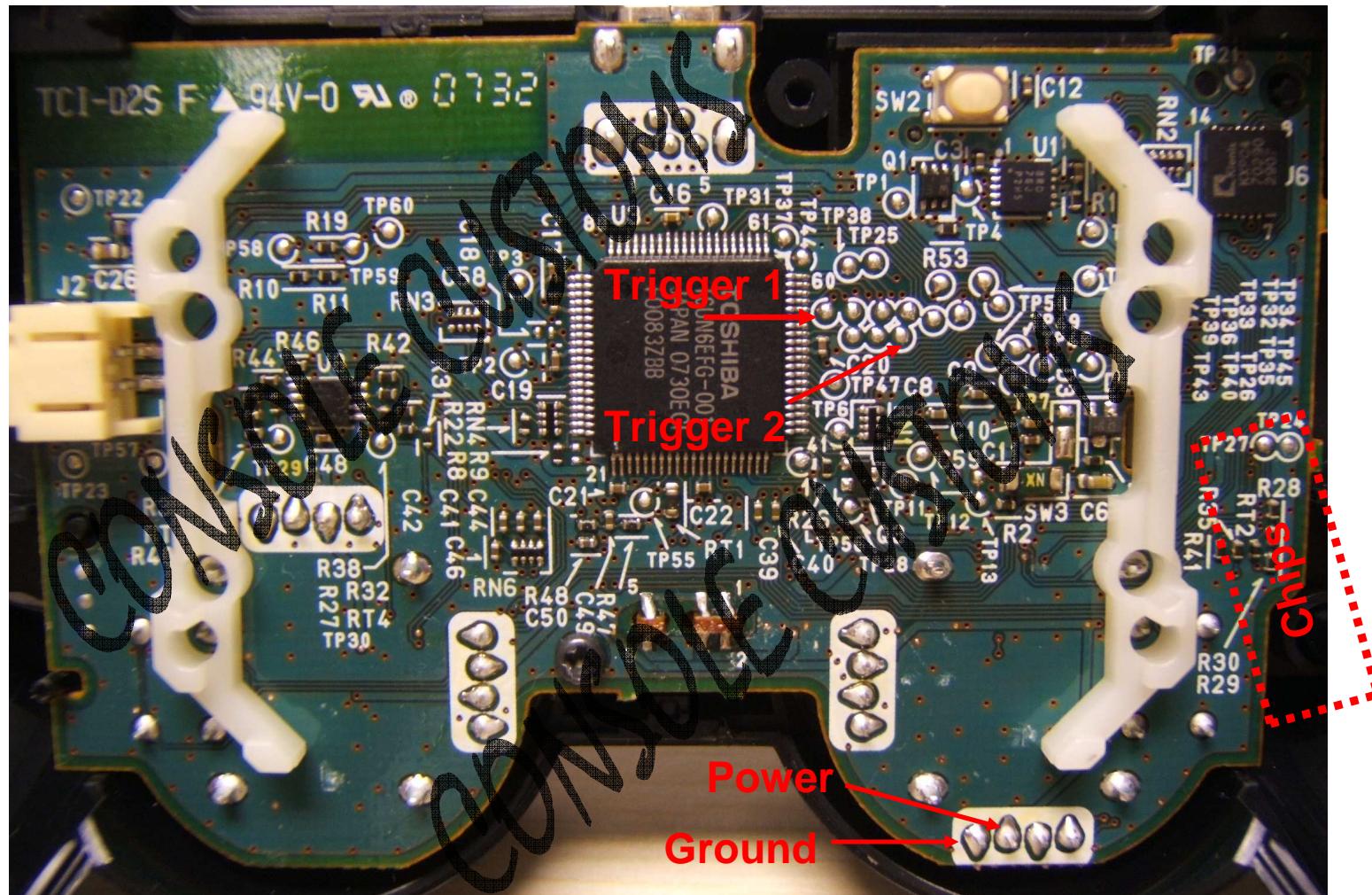
Step 7a: Where it all goes – Now that you know which PCB style you have we can begin the installation. 7a (this page) shows the connections for the OLD style sixaxis PCB.

- The wires you attached to pins 13 and 14 of the switch will go to the trigger points 1 and 2. It does not matter which way these are connected. Either wire from the switch can go to either trigger point on the controller.
- The power and ground connections are also shown. The chips will sit on a slight angle to fit properly in the controller as shown.



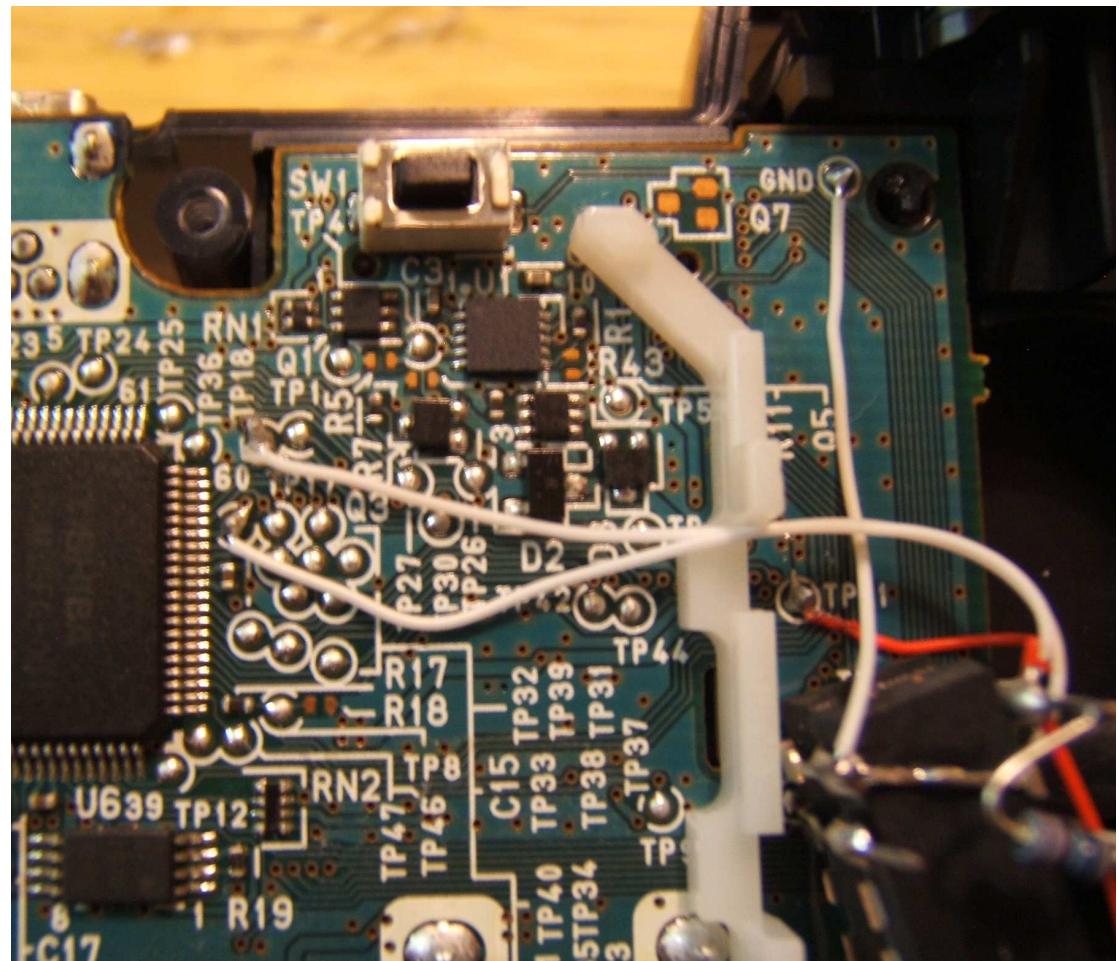
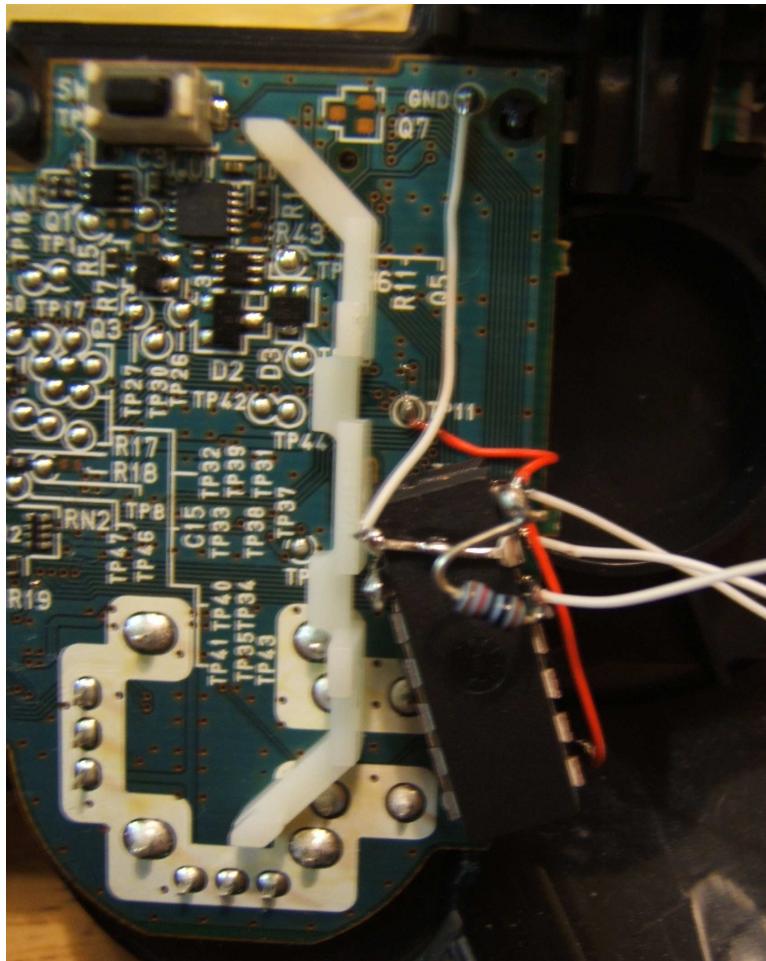
Step 7b: Where it all goes – Now that you know which PCB style you have we can begin the installation. 7b (this page) shows the connections for the NEW style Sixaxis PCB and also the Dualshock 3 PCB (the new sisaxis is shown but connection points are the same for both).

- The wires you attached to pins 13 and 14 of the switch will go to the trigger points 1 and 2. It does not matter which way these are connected. Either wire from the switch can go to either trigger point on the controller.
  - The power and ground connections are also shown. The chips will sit on a slight angle to fit properly in the controller as shown.



#### Step 8: Installation (old sixaxis PCB shown)

- Start by hot gluing your chips as shown and solder in your power and ground connections using the solder points shown in the previous step for your PCB type.
  - Next solder in your two trigger wires according the points in the previous step.
  - Installation to the controller PCB is now complete.



Step 9: Next we will install the button for the rapid fire.

- You can put your button where ever is most comfortable for you. Here we are showing how we install ours. Using your 3/16<sup>th</sup> drill bit make your hole and trim off any rough edges.
- Your button will have 4 legs, we only need two (one pair). Each pair is along the same edge so with one pair removed you will have three sides of the button with no legs and one side with two legs.
- Put the button in place and use hot glue to hold it in. Once in, fold over the two legs over top of the button.



## Step 10: Final steps

- Attach the button wire from the PIC to one side of the button you just installed.
- The other side of the button will need to be connected to ground.
- re-assemble your controller and you are done.

