PS4

Remap

Modchip

Installation and Use Instructions

Revised 10/8/2015

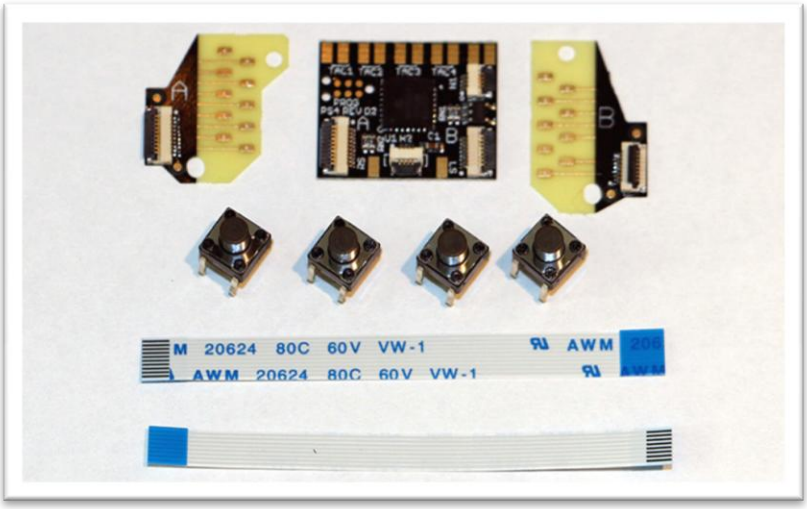
For Sony PS4 Circuit Board Revision "JDM-030"

Tools needed

- PS4 Controller (Circuit board revision JDM-030)
- Viking PS4 Ragnarok Flex modchip “Revision D” kit: 3-piece modchip, 10-position ribbon cable, 8-position 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
- Fine phillips screwdriver
- Power drill
- 9/64 inch drill bits
- Hot glue and glue gun
- Safety glasses
- Additional useful items: flux, tweezers, scissors, wire snippers, etc.

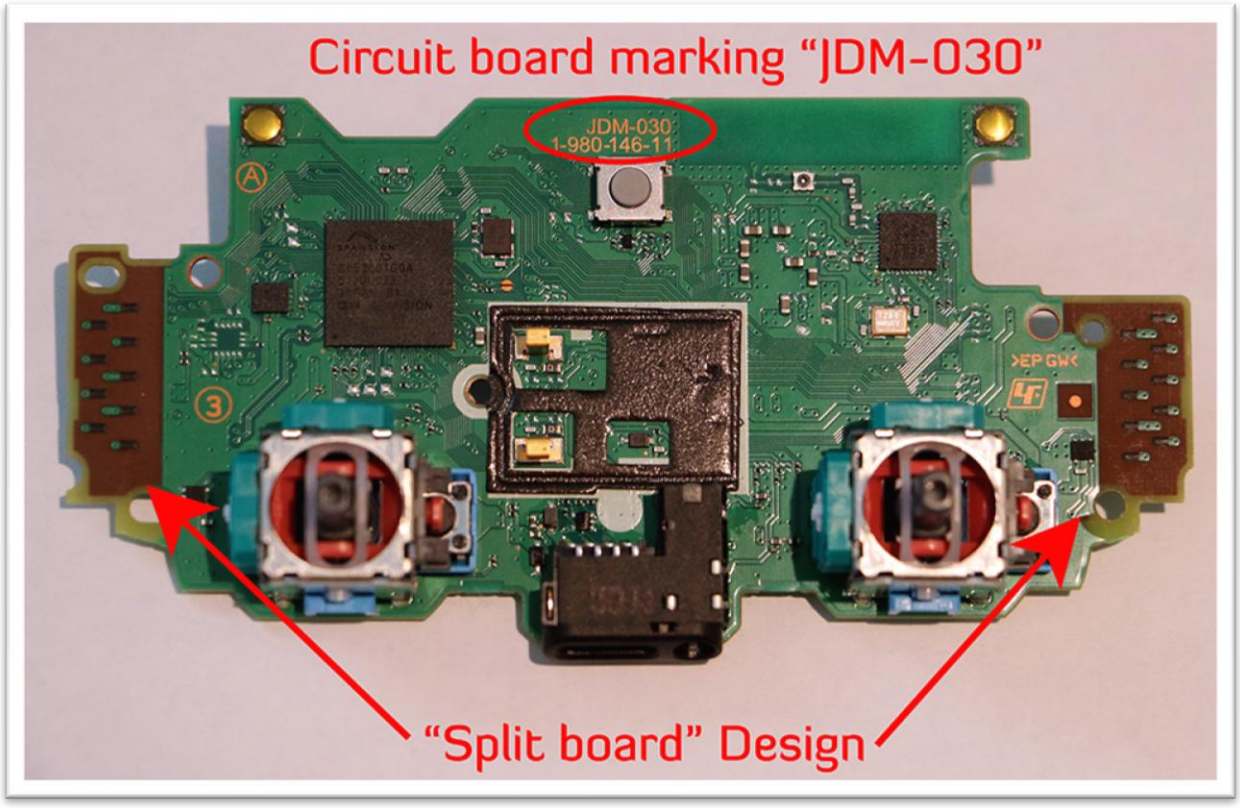
Please note that throughout the physical portion of installation guide, such as removing battery packs and disassembling the controller, has not changed much from one Sony circuit board to another. In the interest of saving time, throughout this guide we may “recycle” photos from previous installation guides.

Determine modchip and board revision



Please note that these instructions are for Sony PlayStation 4 controller revision “JDM-030”. You will need the PS4 Ragnarok Revision “D” pro remap modchip kit (pictured above) in order to modify the Sony JDM-030 circuit board.

To identify the “JDM-030” circuit board, look for the “JDM-030” marking and the “split board” design:



Remove the screws and cover

Once the 4 screws are removed, start separating the cover near the microphone port at the bottom. It may take some force to separate the shell. Cracking noise may be heard and some small tabs may be broken in the process, practice will make this process go more smoothly:

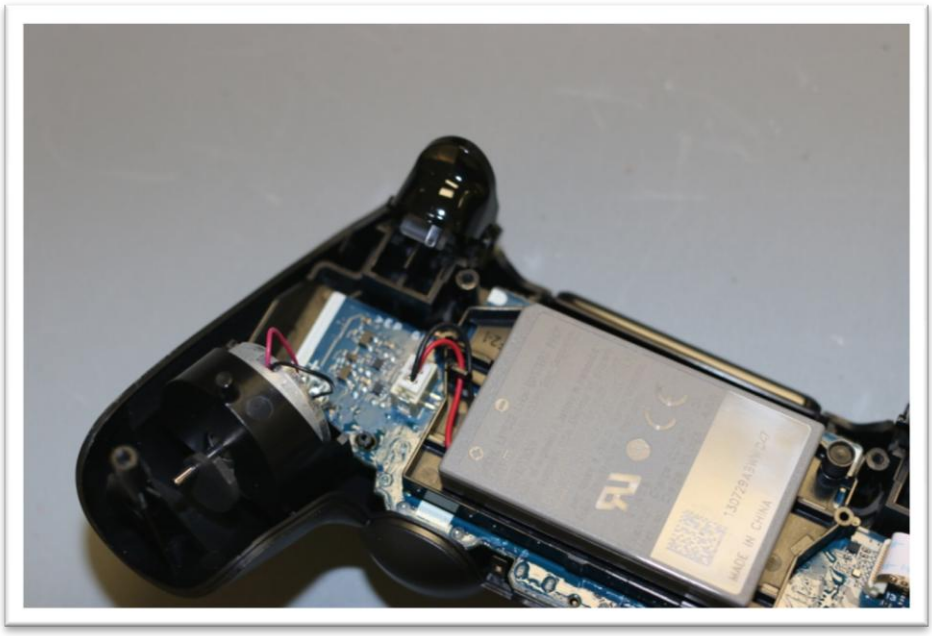
It is possible to remove the shell without removing either the triggers or the bumpers. The rear part near the round end of the handles should be lifted up and over the pegs that lie underneath:

Once the rear handles have cleared the pegs, it is possible to push the back half of the shell "forward" to clear the bumper and triggers, without causing the triggers to pop off. Practice will make this process go more smoothly. If the triggers pop off, **LOOK AROUND CAREFULLY FOR THE SMALL TRIGGER SPRING.** The small trigger spring is required otherwise the trigger will not return fully to the non-pressed position.

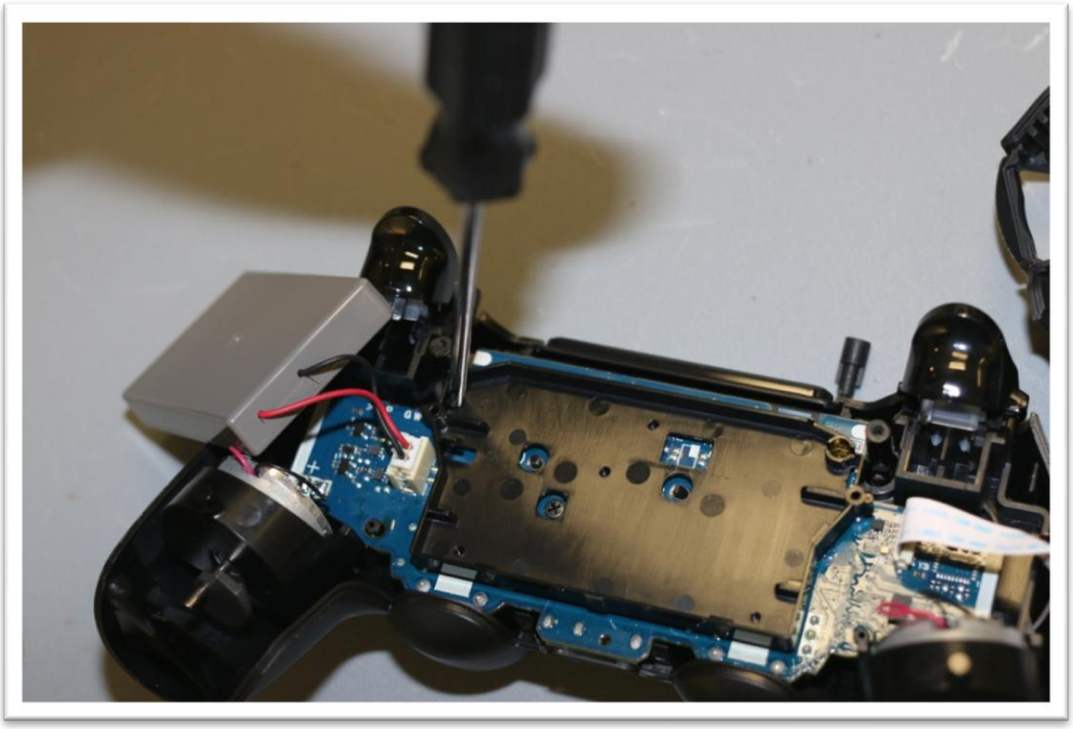
Disassemble the circuit board

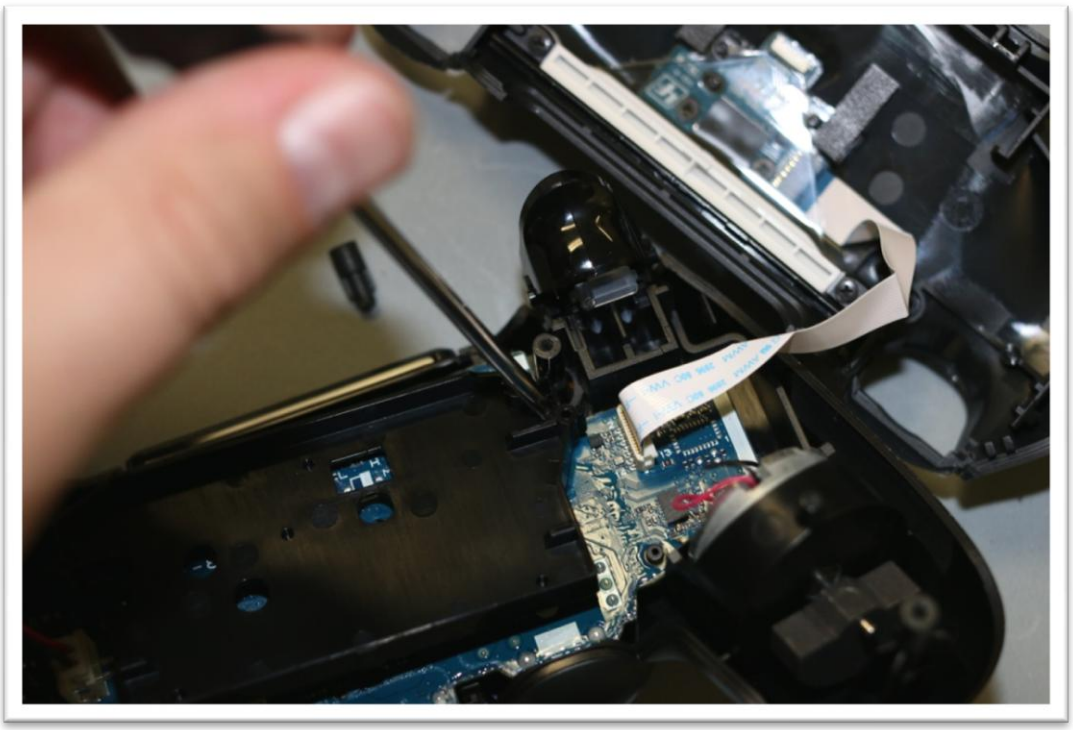
Once you've gotten the back half separated from the front half, flip it open like a clam shell:

Unhook the battery wires from the battery wires hook and remove the battery.



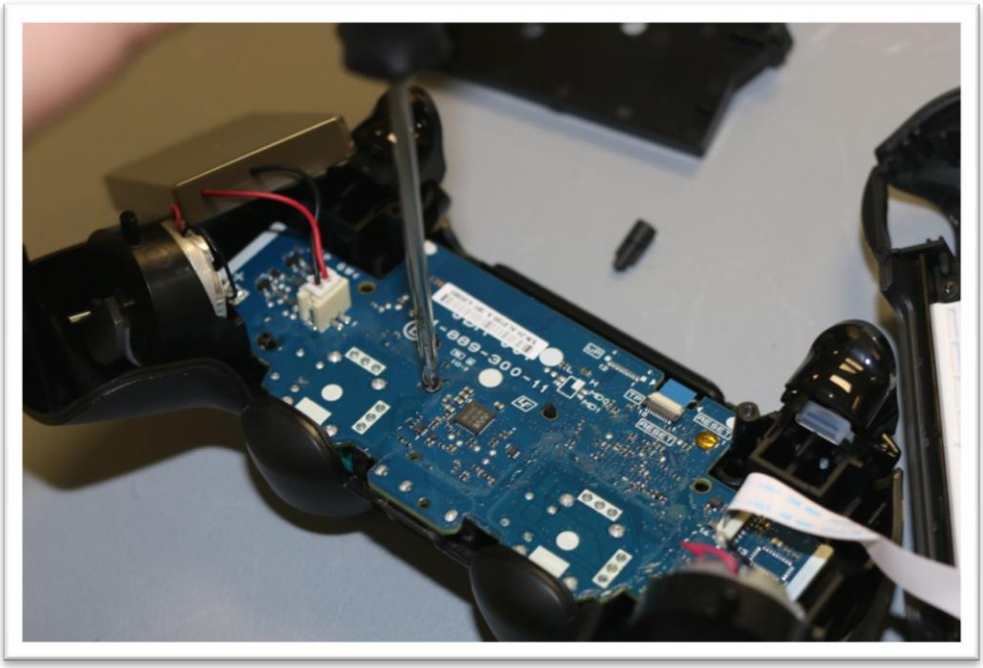
The black battery holder is held in place by two plastic tabs that “hook” around the circuit board. The tabs can be loosened by inserting a flat-tip screwdriver in the locations shown:



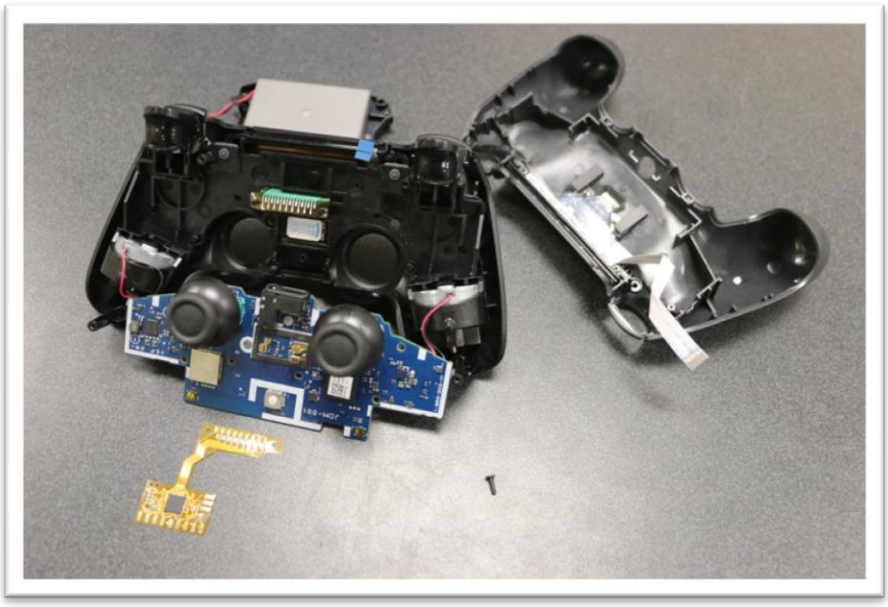


Remove the black plastic battery holder. Remove the single screw that holds the circuit board in place. Now, remove the battery wires, remove the larger white ribbon cable by pulling straight up on the blue tab.

Next, notice the smaller ribbon cable near the “RESET” on the board. Flip up the little white tab, then pull the ribbon cable out by pulling on the blue tab. The white tab locks the blue tab in place, so the white tab must be lifted before the blue tab can be pulled out.



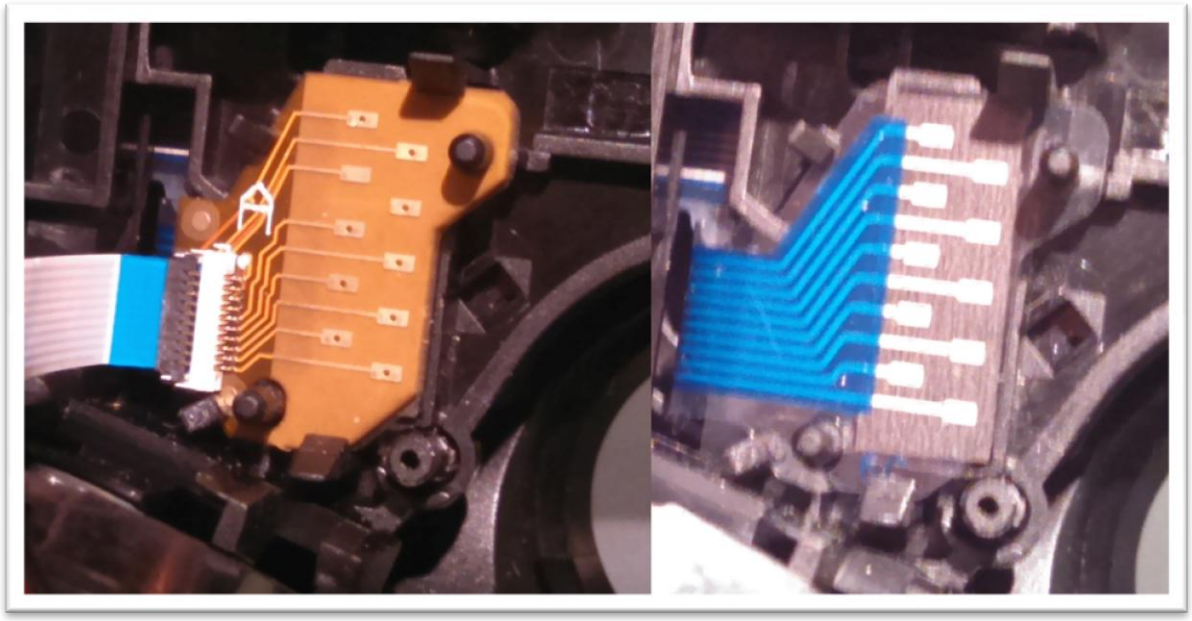
Once both ribbons have been removed, the battery has been removed, the reset button has been removed, and the single screw has been removed, the circuit board is still permanently connected to the two rumble motors. Pull the circuit board up and flip it over clam-style again:

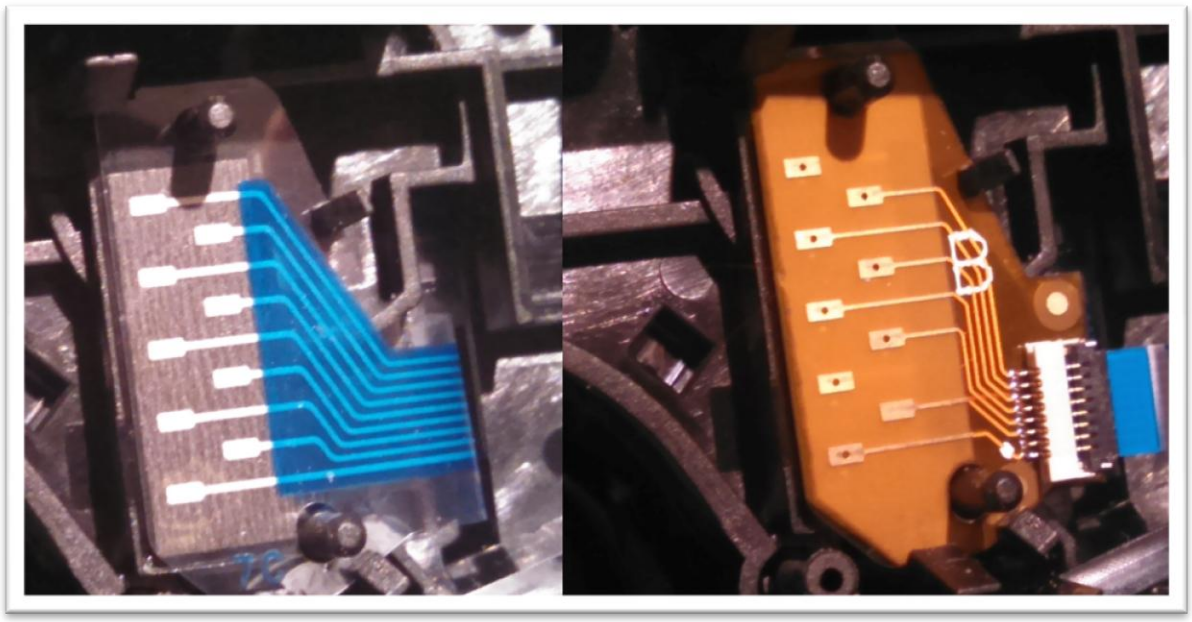


We are now ready to proceed with modchip installation.

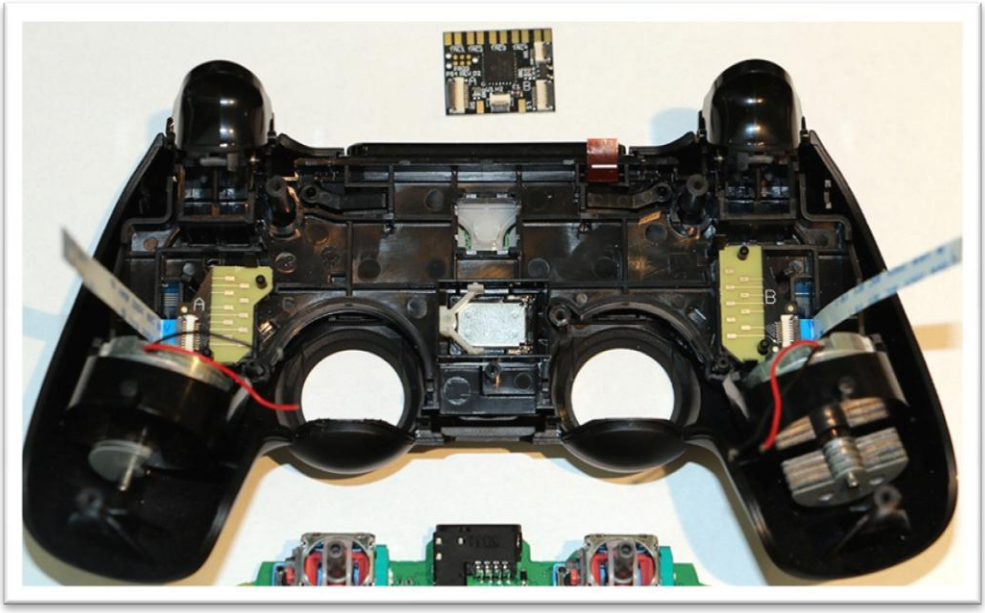
Install the modchip

Install the Wing A and Wing B from the modchip kit directly over top of the existing clear wings:

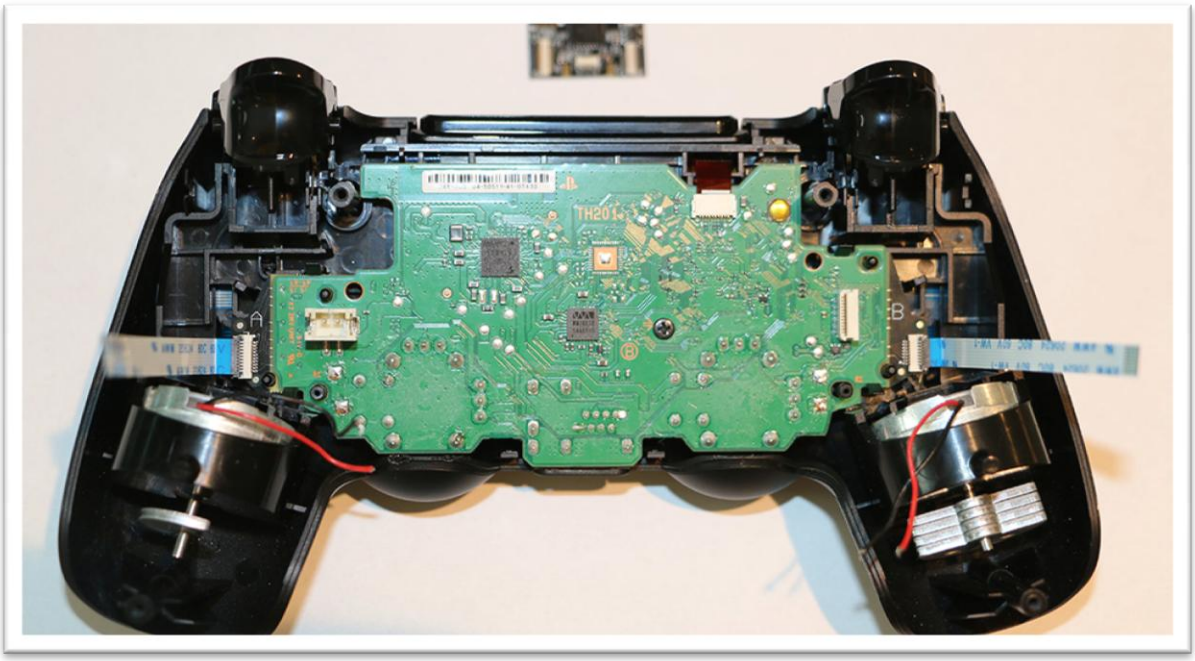




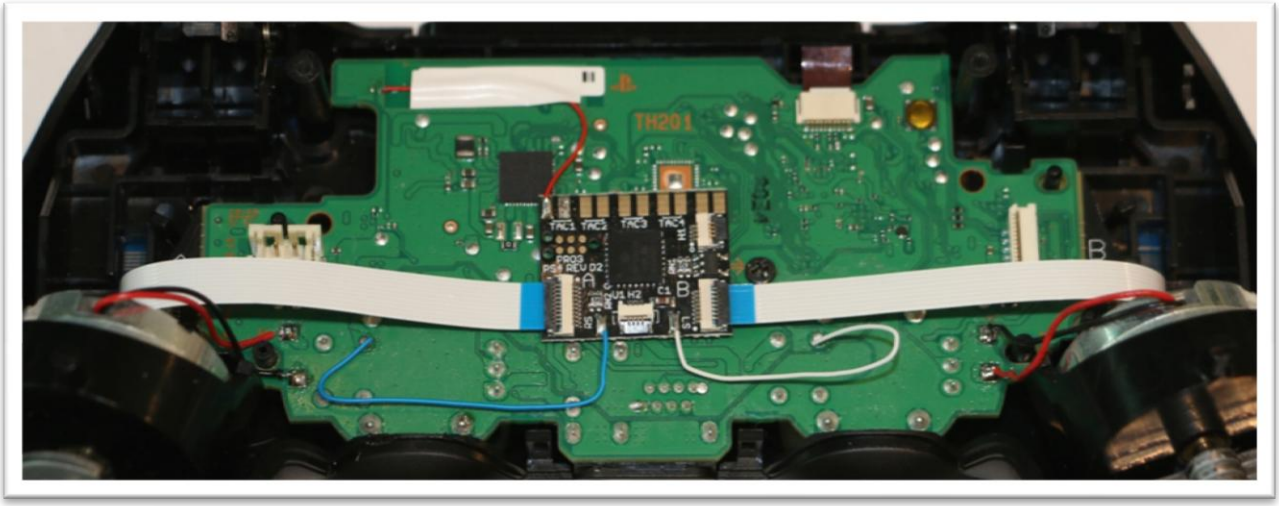
Insert the 10-position ribbon cable into “Wing A” and secure the cable by flipping over the black clasp. Insert the 8-position ribbon cable into “Wing B” and secure the cable by flipping the black clasp. Bend both cables up at a right-angle.



Re-install the Sony circuit board and re-insert the single screw that holds the Sony circuit board in place.

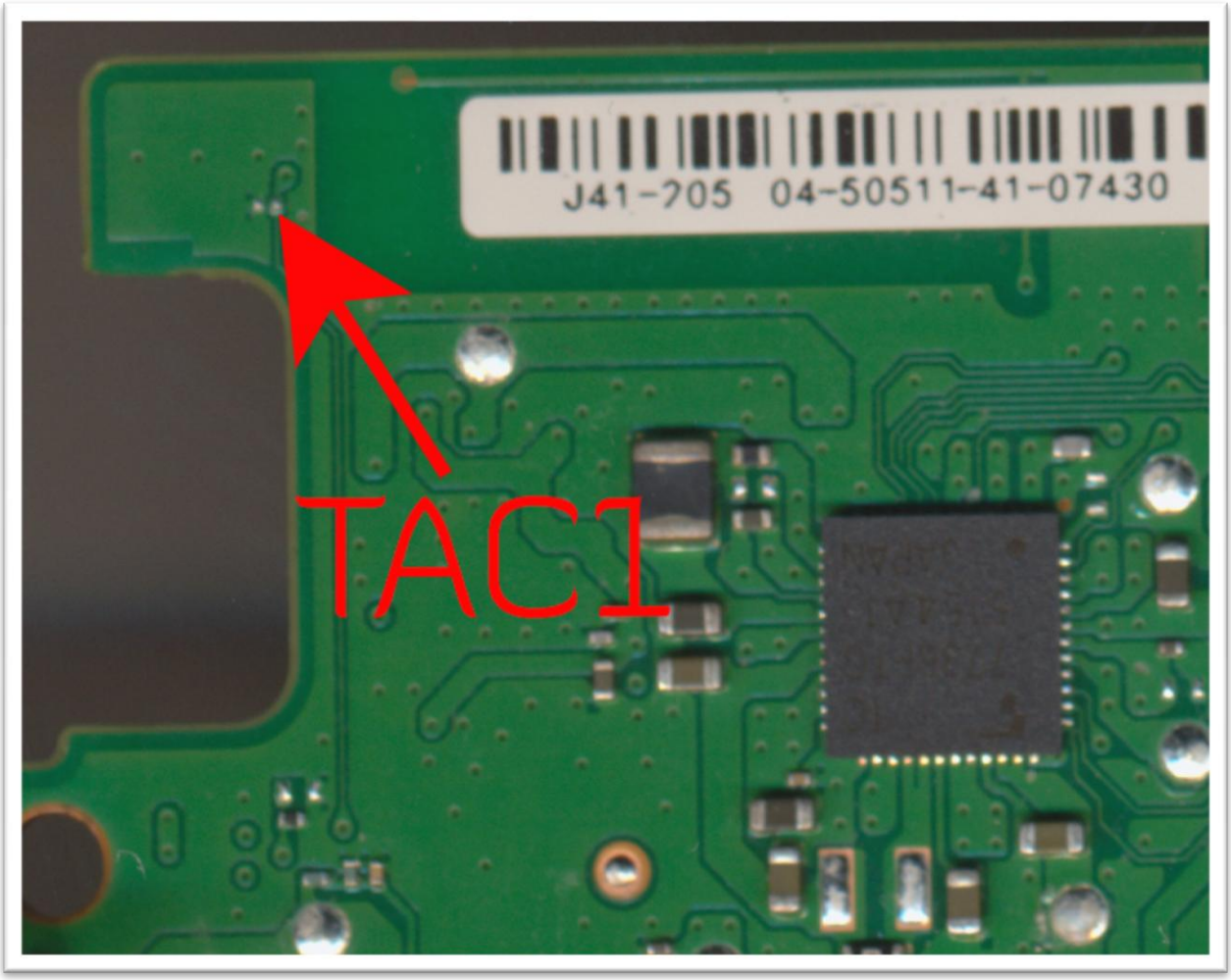


Connect Wing A to the main board using the 10-position ribbon cable. Connect Wing B to the main board using the 8-position ribbon cable. Connect the 4-position ribbon cable from “H1” or “H2” (you can use either) to the LED driver board. Connect the “RS” (blue) and the “LS” (white) wires.



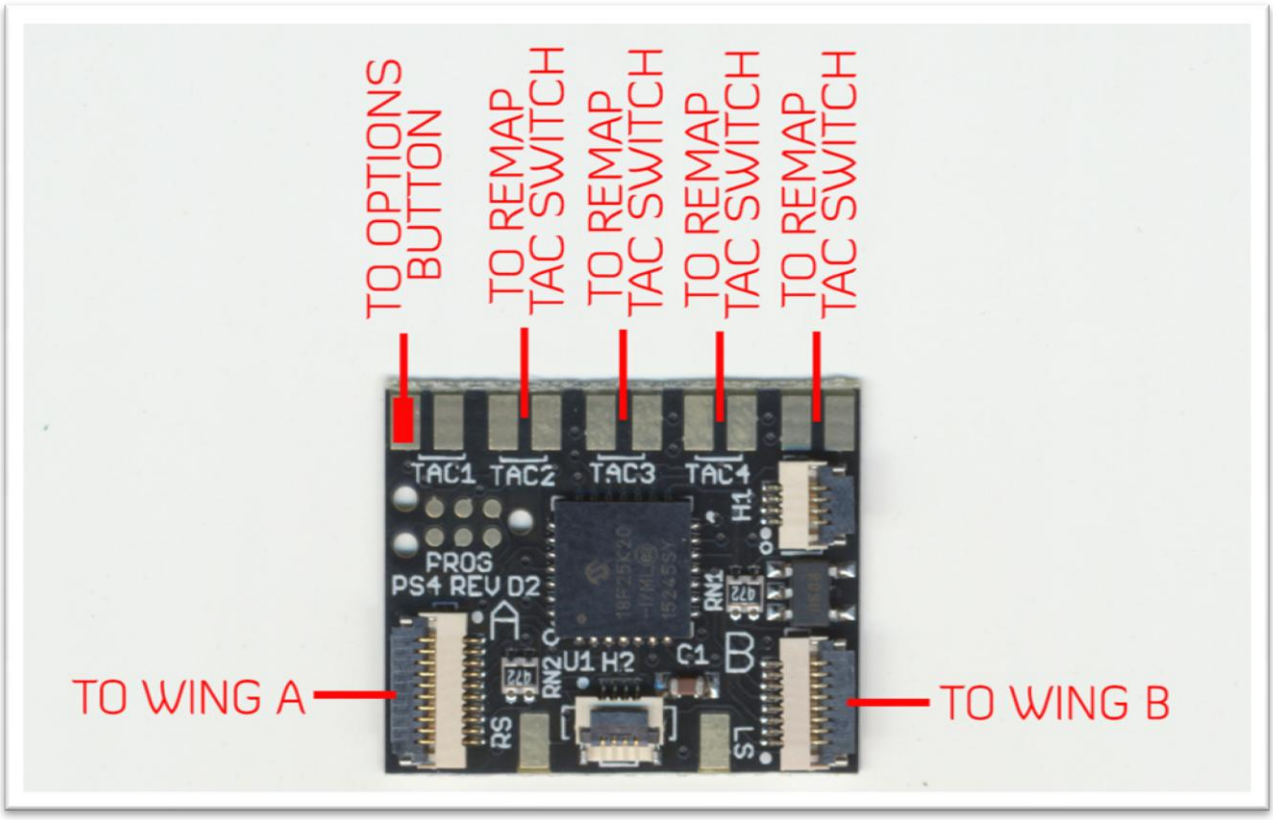
At this point you have completed the electrical installation. Proceed with mechanical installation as outlined in the following sections of the manual.

Here is a close-up photo of the connection point for TAC1.



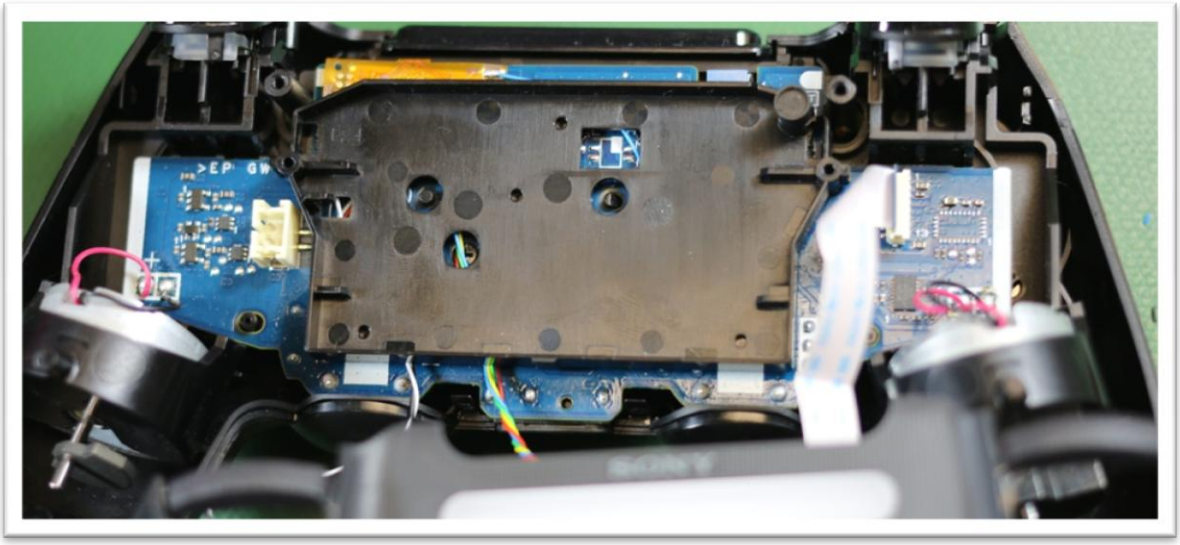
Connecting Re-mappable Tactile Buttons

You may connect many up to four additional tactile buttons to the modchip, and these tactile buttons may then be used as programmable remapping buttons. The photo below shows “TAC2”, “TAC3”, “TAC4” and “TAC5”.

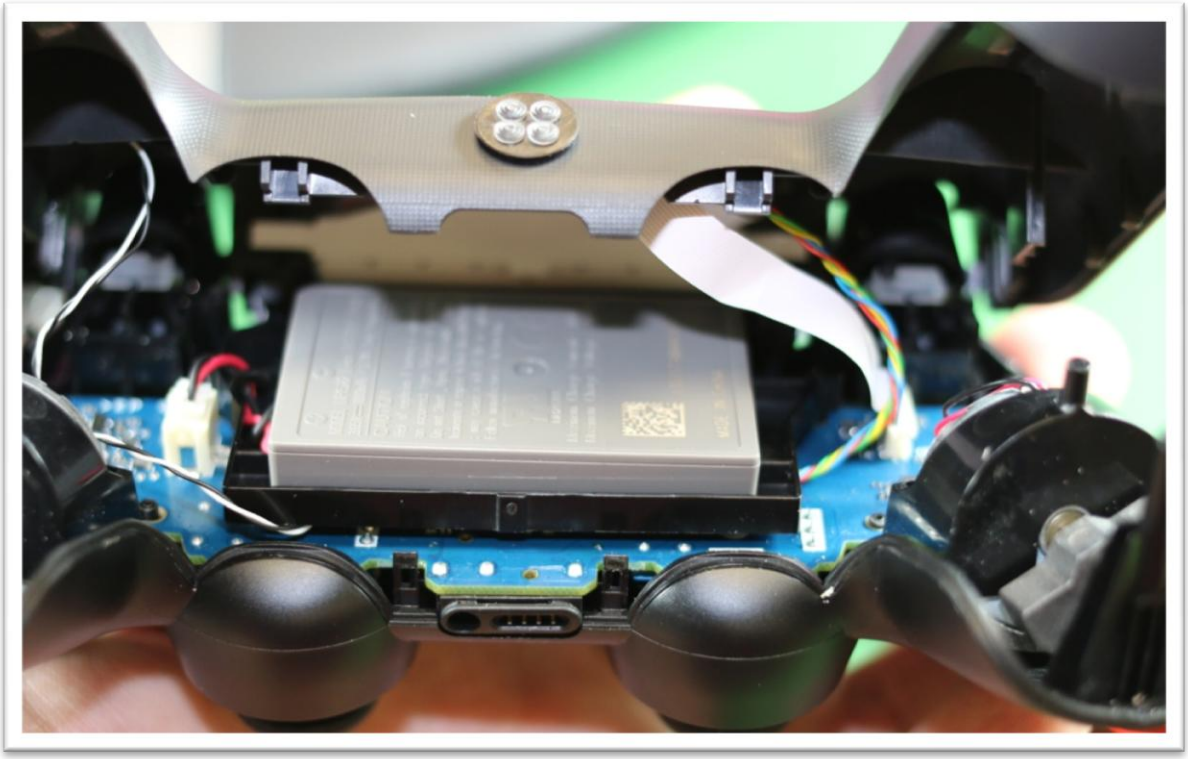


Put the controller together

Once the 10 modchip is installed, re-install the plastic battery cover and the controller's ribbon cables.



Route any ribbon cables or wiring harnesses carefully to avoid pinching off any ribbon cables or wiring harnesses when the shell is closed up:



Setup the Remappable Buttons

The PS4 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 a PS4 console.

To enter button programming mode: Once synced to a PC or console, hold the OPTIONS button for at least 3 seconds, then release. 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.

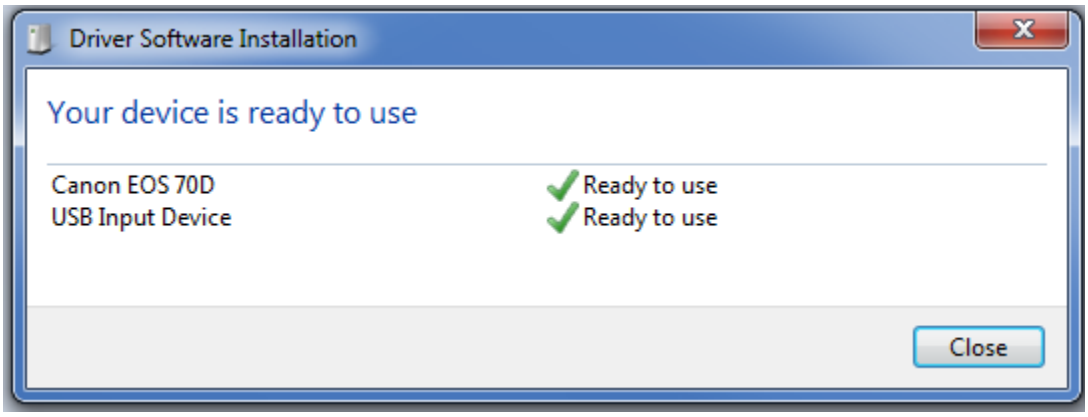
To program a tac switch: Once in programming mode, hold down any tac button, then tap a stock button to map it to the tac switches.

To exit programming mode: When you are done setting up all your tac switches, hold the OPTIONS button for at least 3 seconds, then release. 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.

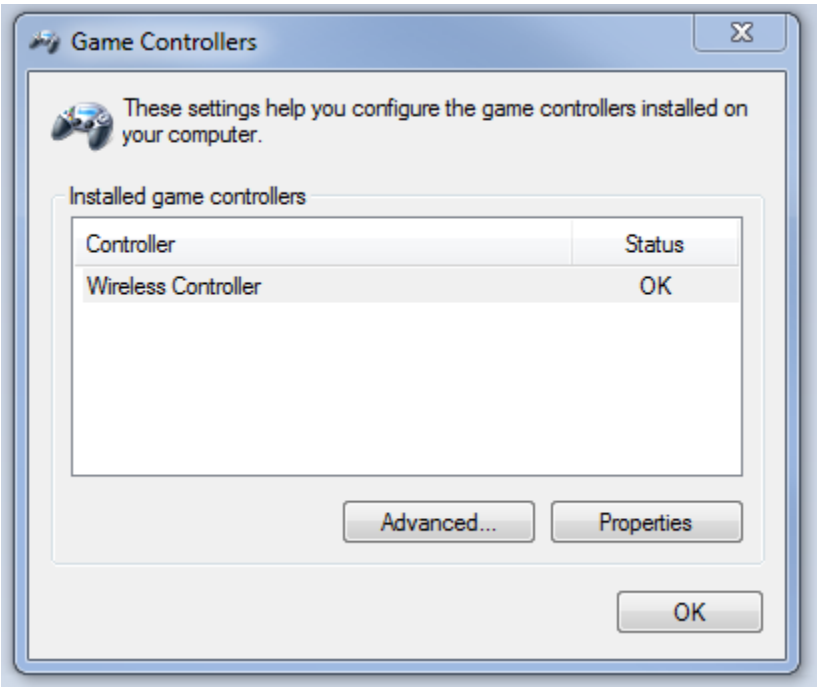
To use the remappable tac switch: After the tac switch is setup to emulate a stock button, just press it – you now have a remapped tac switch that emulates a stock button press.

Test the Controller Through Windows

The PS4 controller can be connected to a Windows PC.



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. Mods such as rapidfire can be tested without the need for a console by monitoring the flashing lights in the tool: