



Welding technique: How to replace the joystick potentiometer

Video guide showing step by step process to replace the potentiometer for an Xbox One wireless controller.

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INTRODUCTION

Desoldering technique with [gootwitck mesh], hot air station and yihua soldering iron. (hot air at 100 ° C helps to preheat the control logicboard.)

TOOLS:

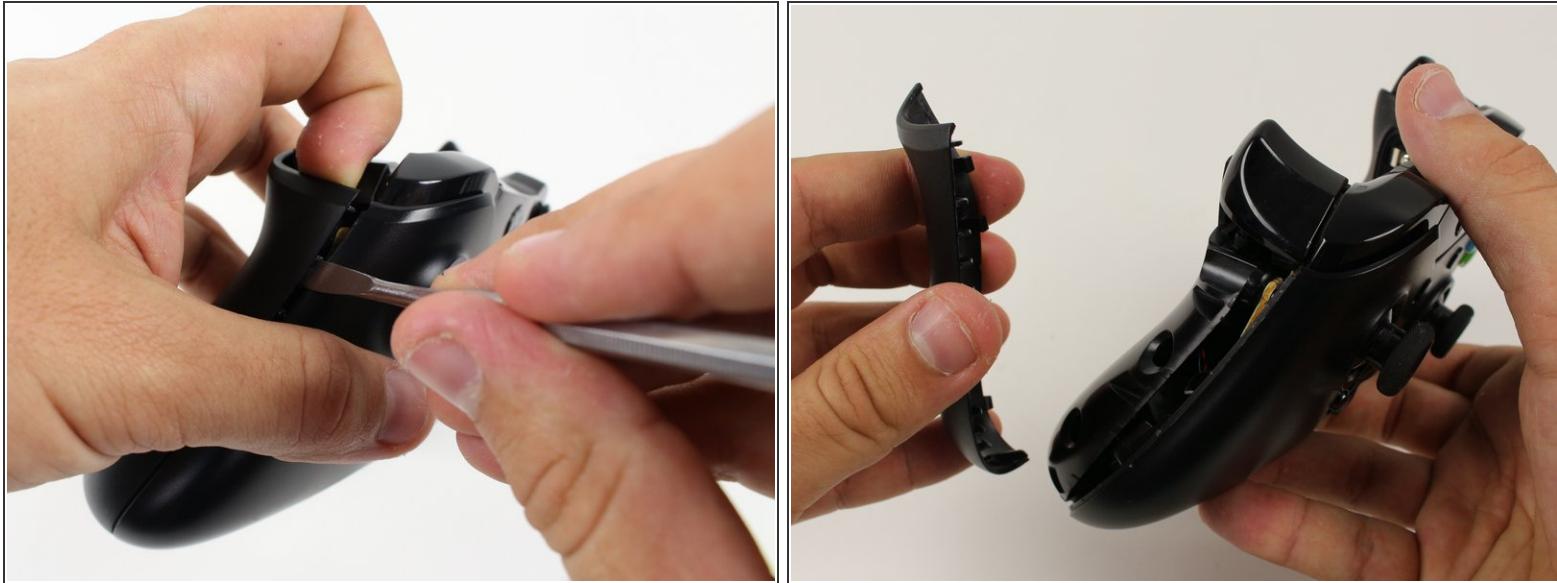
- [T8 Torx Screwdriver](#) (1)
- [Spudger](#) (1)
- [T6 Torx Screwdriver](#) (1)
- [Tweezers](#) (1)
- [Soldering Iron](#) (1)
- [Rosin Flux](#) (1)
- [Hot Air Rework Station Hakko FR-810](#) (1)

Step 1 — Battery Pack



- Remove the battery pack cover.
- Remove batteries.

Step 2 — Side Handles



(i) We recommend using a nylon spudger for this step. A metal spudger is shown.

- Grip the controller firmly to remove the side handles, wedging a spudger into the seam between the front and handle plates.
- Pry the side plate away from the front plate by moving the spudger back and forth. You will need to do this all the way around the side plate's seam.

Step 3 — Screws



(i) There is a hidden screw located in the middle of the controller behind the label.

- Use a screwdriver and punch a hole directly in the center of the label.
- (i)* You may also lift the label if you do not want to puncture it.
- Remove the five 10mm screws located on the back of the controller using the T8 Security Torx Screwdriver.

Step 4 — Backplate



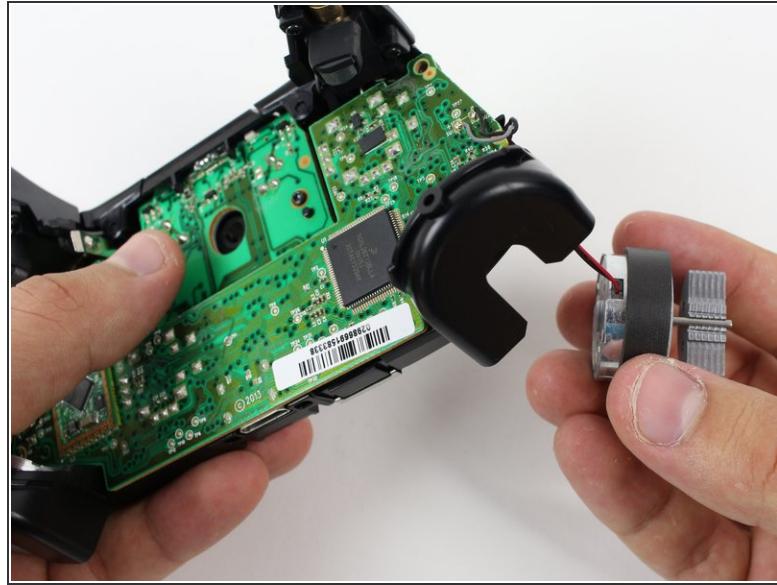
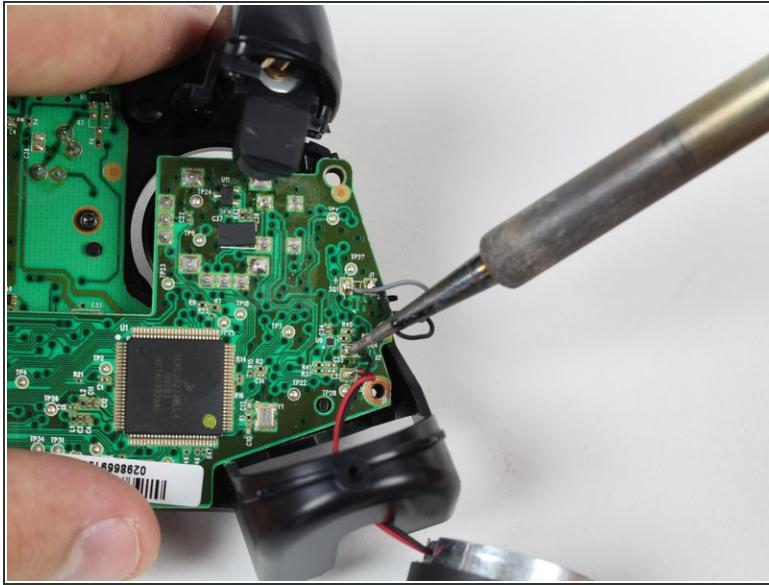
- Remove the backplate.

Step 5 — Faceplate



- Remove the faceplate.

Step 6 — Top Motherboard



(i) You may let the rumble motors hang freely out of their sockets.

- De-solder the soldered joints while holding the red and black wires down on the top motherboard.
- De-solder the black and gray wires that are attached to the top motherboard.
- Remove the rumble motors and set them aside.

⚠ Be careful while using the soldering iron not to damage other components or hurt yourself.

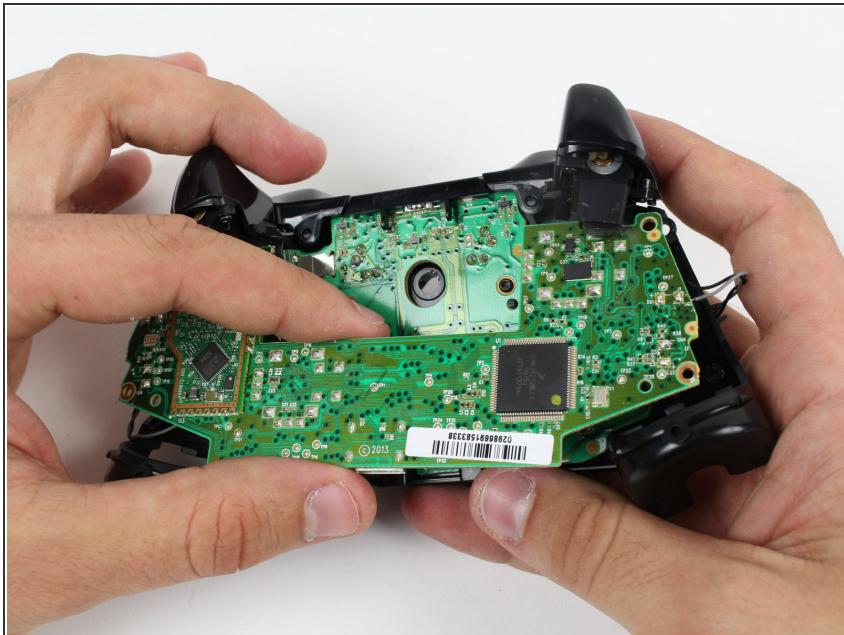
(i) For information on how to solder, [click here](#).

Step 7



- Unscrew the two 7mm T6 screws located near the rumble motor sockets.

Step 8



- Firmly grip sides of motherboard near the middle.
- Lift upwards while slightly wiggling the motherboard forward and backward.

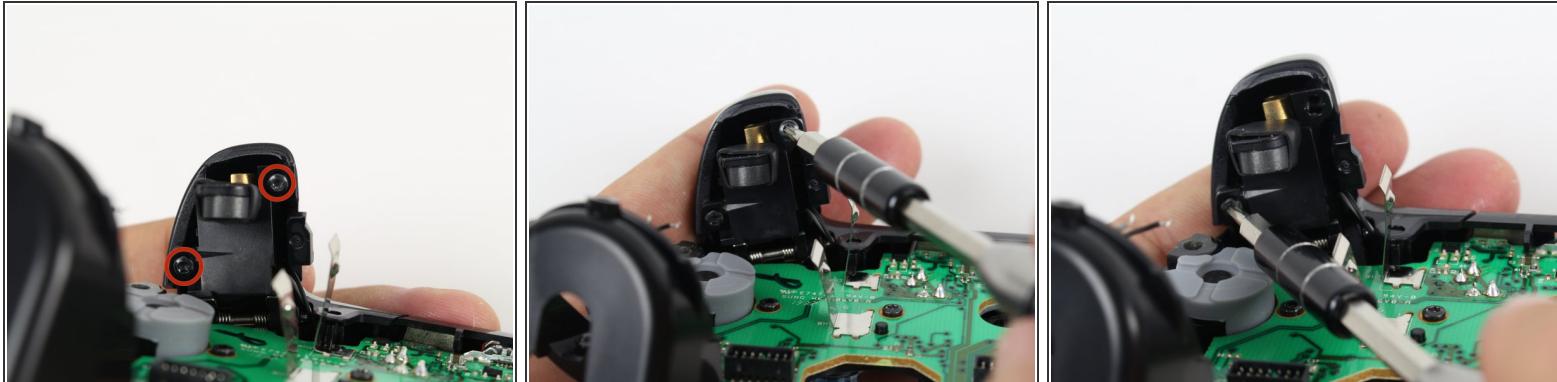
ⓘ Lifting the motherboard will require some force.

Step 9 — Trigger Rumble Motors



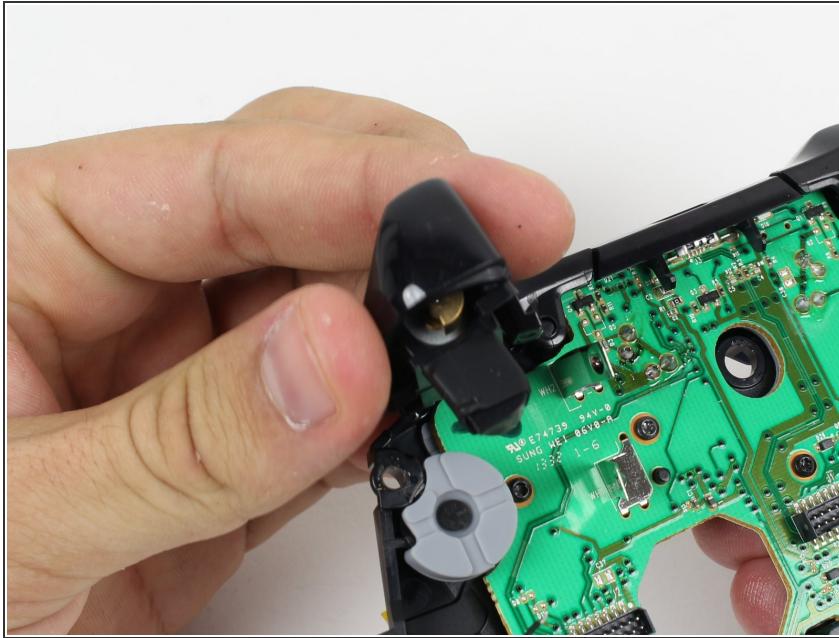
- Remove the yellow tape holding the wires in place on the front of the controller.

Step 10



- Unscrew the two 7mm T6 Hex screws located on underside the triggers.

Step 11



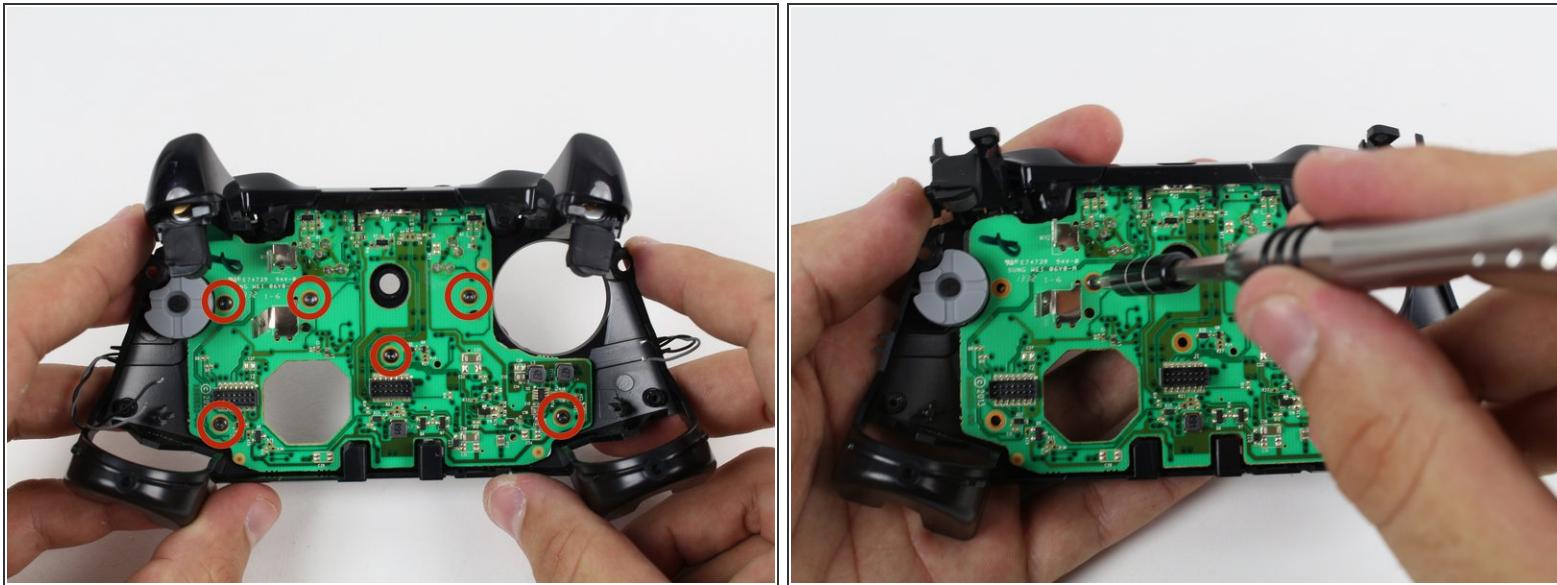
- Remove the trigger covers.

Step 12



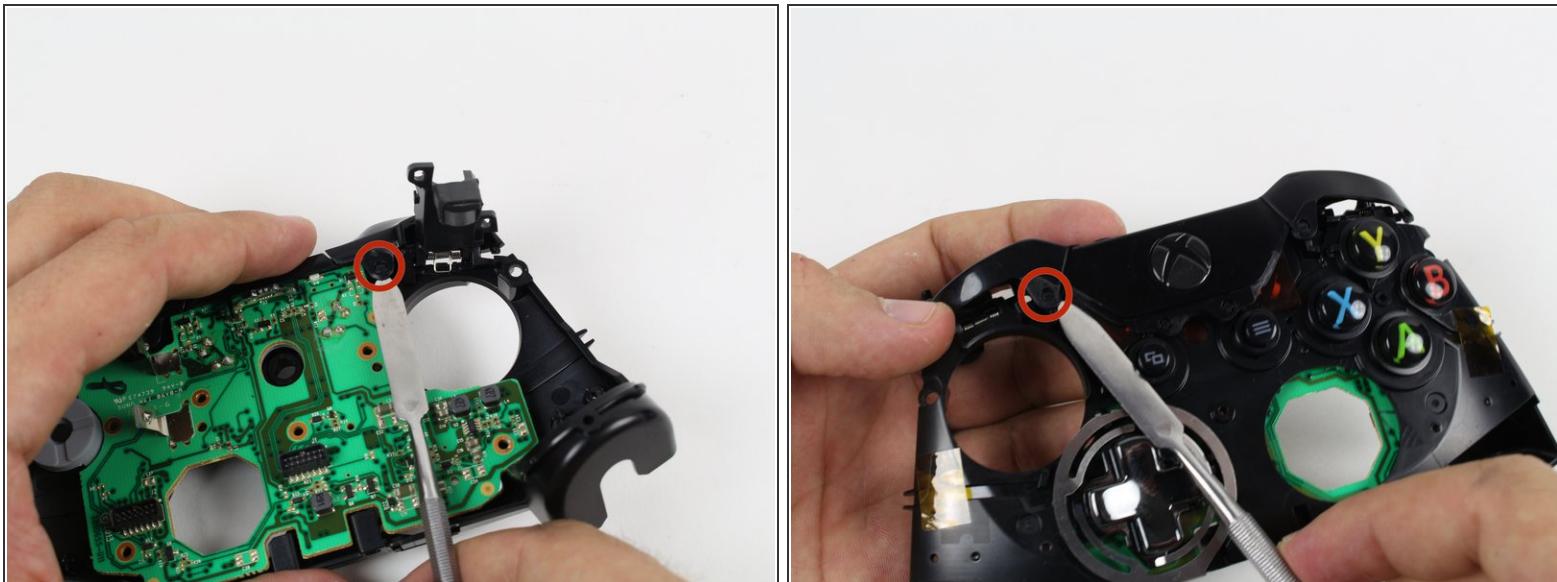
- *i* Desolder the wires from the motherboard.
- Remove the rumble motors from its socket and pull the wire with it.

Step 13 — Bottom Motherboard



- Remove the six T6 Torx screws located on the bottom motherboard.

Step 14



- Remove the bumpers by prying them off of the pegs that secure them, using a spudger. They are located on the front and back of the controller.

⚠ A standard nylon spudger is recommended for this step. Using a metal spudger near the motherboard as shown risks damaging your device.

Step 15

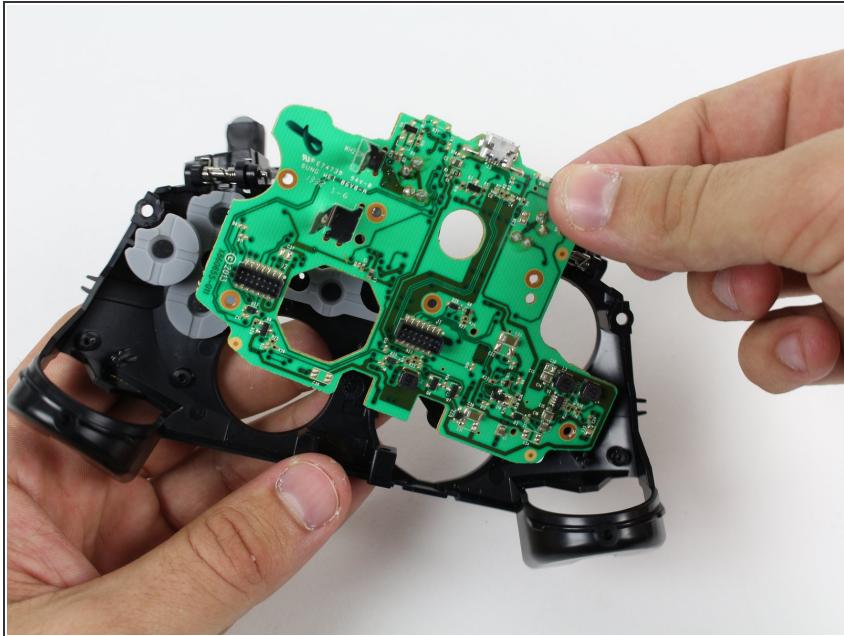


- Lift the piece surrounding the Home button off of its pegs.
- Pry it off of the other side, using a spudger on the pins.

⚠ A standard nylon spudger is recommended for this step. Using a metal spudger near the motherboard as shown risks damaging your device.

ⓘ Removing this piece may require a lot of force.

Step 16



- Remove the bottom motherboard.

To reassemble your device, follow these instructions in reverse order.