Oculus Quest 2 Controller Disassembly

This guide will walk you through the steps to disassemble the Oculus Quest 2 controller to access the joystick and clean it to remove drift.

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INTRODUCTION

This guide will walk you through the steps to disassemble the Oculus Quest 2 controller to access the joystick and clean it to remove drift.

PROCEED AT YOUR OWN RISK. It is easy to lose pieces and damage the device. Opening it up like this will void the warranty, if it is still covered.

I first used Electrical Contact Cleaner to help fix the drift with some success, but the drift eventually would come back. Over time, the duration my controller would work without drift would decrease; so I decided to open up the controller to learn more about what was happening and how to correct it.

Before attempting this, I recommend trying Electrical Contact Cleaner first.

3 pieces of advice on using contact spray.

1. Remove the battery first.
2. Only spray a little bit. If you completely saturate the joystick, it will take longer to dry since it is enclosed. I like to leave the controller upside down for 5-10 minutes to let it dry out.
3. Make sure that you are pressing down on the joystick while spraying so that the cleaner can reach the sensor. Once you have sprayed it, move the joystick around in circles. This will cause the 2 contact pieces to move the cleaner around on the sensor to try to clean it. Pressing down on the joystick while moving it doesn't make a difference. In fact, it might actually make it less effective.

I hope this helps anyone adventurous enough to attempt this. At the very least, you will now understand what causes drift and why you can't soak the joystick with electrical contact cleaner to fix it.

TOOLS:

- **T5 Torx Screwdriver** (1)
- A T4 works as well. If the screws get stripped, use a hex bit.
- **electrical contact cleaner** (1)
- **Small Paintbrush** (1)

Optional
Step 1 — Remove Screws From Inside Battery Compartment

- First, open the battery compartment, remove battery, peel sticker to reveal these 3 screws. Remove the screws. There is a fourth screw on the left side of the image inside the hole. You will need a small star screwdriver to do this. It is the same for all of the screws.

Step 2 — Pry The Faceplate Off

- Pry the faceplate off. It is secured with adhesive, so the first time it's a little hard to do. Don't worry about
ruining the adhesive, it is also held in place with plastic posts.

Step 3 — Remove Screws From Under The Faceplate

- Remove all of the screws you can see. 1 long black one (orange circle) and the 2 that secure the plastic circle that are slightly smaller (teal circle).
- Most of these screws are the same except for 1 long silver one.

Step 4 — Remove Outer Plastic Shell

- Once the screws are removed, use a screwdriver to press the plastic notch. Once that is released, remove the casing starting from the side without the notch.
Step 5 — Pry Controller Apart

- Pry the controller apart like this. This take a little manipulation to get it to open. I found the easiest way was to use a flathead screwdriver to pry it open at the bottom first.

Step 6 — Disconnect The Ribbon

- Disconnect the ribbon. There is a latch you flip up on the circuit board (blue arrow). This is easy to take apart but a pain to put back together. Make sure you have needle-nose plyers or tweezers for this when you put it back together.
Step 7 — View Of Ribbon

- Here is another view of the ribbon. I HATE this thing. By far the hardest part of putting it back together.

Step 8 — Remove Screws From Circuit Board And Disconnect Joystick

- Now, you need to remove the 4 screws holding the circuit board to the controller. You are NOT going to remove it completely, just lift it high enough to remove the joystick. The joystick has a small ribbon (blue ribbon) as well, but it is easy to connect and disconnect. Flip the latch up to disconnect the joystick ribbon.
Step 9 — Remove Joystick

- Lift up the circuit board and pull the joystick free. The X button and the Oculus button fell out both times I've done this. Not a big deal, just make sure you put them back in before sealing everything up.

Step 10 — Remove Rubber Thumb

- Pull the rubber thumb off of the joystick.
Step 11 — Open Joystick Housing

- The housing is held together by the tabs on the bottom plate. Bend them back to pop it off. Be careful doing this, there are a lot of little pieces and a spring that can go flying.
Step 12 — Joystick Parts Bottom Row

- Here are all of the pieces inside the joystick on the bottom row.
- 1 - The sensor that causes drift when dirty
- 2 - The bottom part of the joystick that the stick fits into. This is what moves the sensor left/right.
- 3 - This piece sits on top of #2. This is what moves the sensor up/down
- 4 - The stick. This fits through the hole in #3 and fits inside #2.
- 5 - These two pieces are what make contact with the sensor and they are moved around by #2 and #3
- MISSING FROM PICTURE - There is a little black plastic piece that is in the shape of an arch that locks #2 into place in the housing.
Step 13 — Joystick Parts Top Row

- Here are all of the pieces inside the joystick on the top row.
- 6 - Metal housing
- 7 - Spring for pressing down on the joystick
- 8 - Metal ring to keep the joystick in place and to create contract with the spring (#7)
- 9 - Plastic housing
Step 14 — Clean Sensor And Contacts

- Now that you have it taken apart, use contact cleaner to clean both pieces in the red box on the right and clean the sensor in the red box on the left. Cleaning the sensor is the most important. After spraying with contact cleaner, I use a small paint brush to clean it.

- The 3 black sections (blue arrows) are what recognize up/down/left/right. If there is anything on those, it causes drift. The more you use the controller, the more the black material breaks down and leaves residue behind. Also, the more you use it, the more sweat/dust/dirt find their way into the housing.

- If you use the controller long enough, eventually this will breakdown and can't be fixed. This is a problem with all controllers, not just Oculus.
Step 15 — Reassemble Joystick Housing

- Place #3 into the plastic housing

Step 16 — Reassemble Joystick Housing

- Put the stick through the opening and attach #2 to the bottom of the stick like this. Both #2 and #3 can only sit in the plastic housing a certain way. If it doesn't move correctly, this is probably the problem.
Step 17 — Reassemble Joystick Housing

- Slightly push the stick up so that you can place both #5s in the groove. #2 and #3 sit on top of #5. At this point you should be able to see how the joystick makes #5 move.

Step 18 — Reassemble Joystick Housing

- Place the metal ring on.
Step 19 — Reassemble Joystick Housing

- Place the spring on and the tiny little black piece. That tiny little black piece (blue arrow) locks #2 in place.

Step 20 — Reassemble Joystick Housing

- Put the sensor on the metal housing. It can only fit one way.

- Now, sandwich the housing together without letting anything slip. Bend the metal tabs back into place so that it is secured.
To reassemble your device, follow these instructions in reverse order.

- Reverse the instructions to put it back together. Be careful with the ribbon I mentioned in Step 6.
- Some of the pieces require a little finesse to reassemble, especially the piece that goes around the trigger.
- Make sure that you didn't disconnect any of the ribbons. The last time I did this, I accidentally loosened one of the ribbons under the trigger (blue arrow) and eventually is disconnected.