



Nest IQ Outdoor Camera Module Disassembly

This guide is a "module" disassembly of the Nest IQ Outdoor Camera to allow for repair technicians to start diagnosing and fixing broken cameras.

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INTRODUCTION

This repair has steps that may result in device damage, please take care and use common sense while following steps. **A video is included to provide more detail** into the disassembly process if you run into any issues or are confused as to how the step is described.

This disassembly guide breaks down the Nest IQ Outdoor camera to the “module” level removing all electronics from the camera. It is likely that rather than designed to be easy to repair, the module structure was chosen for ease of assembly in the factory. The LED Ring “seal” of the camera does NOT seem to be designed to be re-opened. A specialized tool may need to be developed to prevent the “prying” method used in this guide.

The modules/parts that the camera breaks down into are as follows:

- LED Light Ring
- Camera Module
- Motherboard Module
- Speaker Module (& Spring)
- Power Board
- Camera Shell/Housing

The writer of this guide and iFixit are not responsible for any damage caused to devices by the following of these steps.



TOOLS:

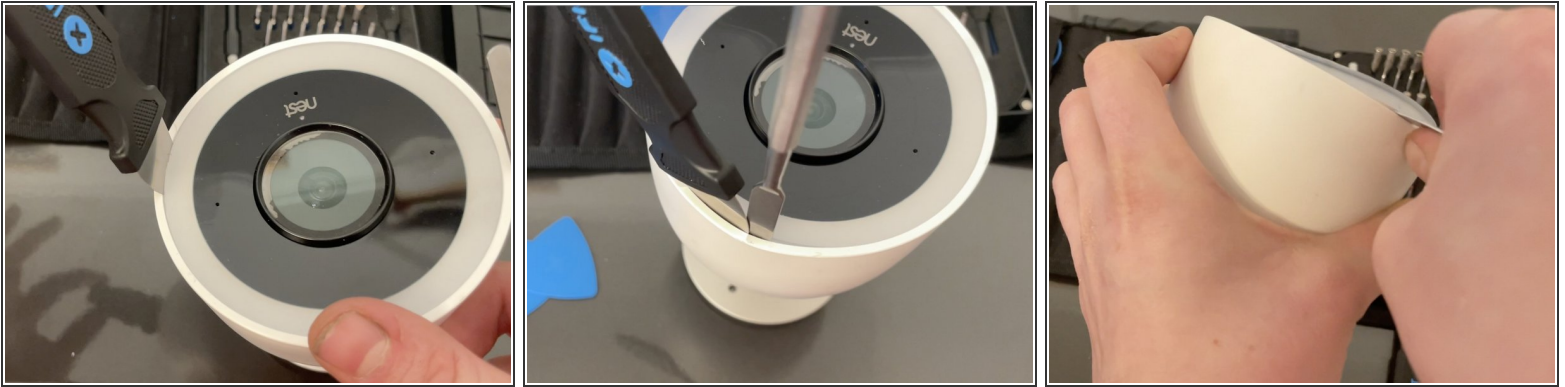
- [Jimmy](#) (1)
- [Metal Spudger](#) (1)
- [Tweezers](#) (1)
- [Spudger](#) (1)
- [T5 Torx Screwdriver](#) (1)
- [T6 Torx Screwdriver](#) (1)
- [TR9 Torx Security Screwdriver](#) (1)

Step 1 — Prepare Camera



- ⓘ Remove the power cord and set the camera firmly on your table.

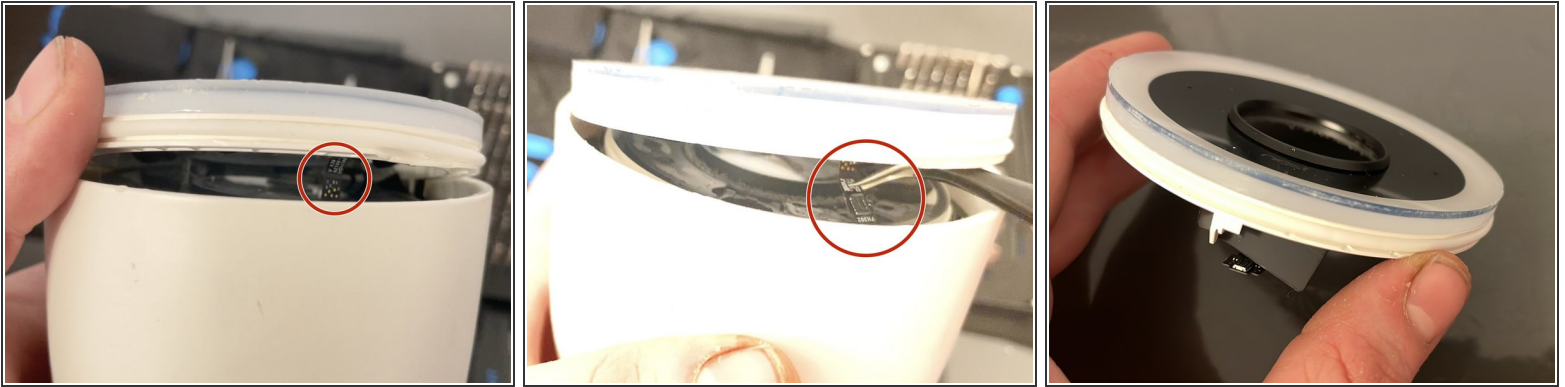
Step 2 — Open camera seal



⚠ This step requires significant force, and has a chance of damaging your device. It takes around 10-minutes of creating gaps and prying to get it off. Perform at your own risk!

- i** If confused with this step, please watch the video to see how it was performed.
- Carefully insert an iFixit "Jimmy" Tool (flat flexible steel blade) between the hard white plastic housing and edge of the LED light ring.
- Pry the "Jimmy" tool slightly sideways and insert an iFixit "Metal Spudger" into the gap created. Slide it down inside the housing around half an inch.
- Use the metal spudger to pry carefully slowly working your way in a circle around the LED Light ring to attempt to slowly work it backwards out of the housing.
- i** There is glue holding down the led light ring, so it might take some decent force to pry it, (see third photo).
- i** The LED Ring is sealed in place tightly using a rubber gasket, (see photo in next step).

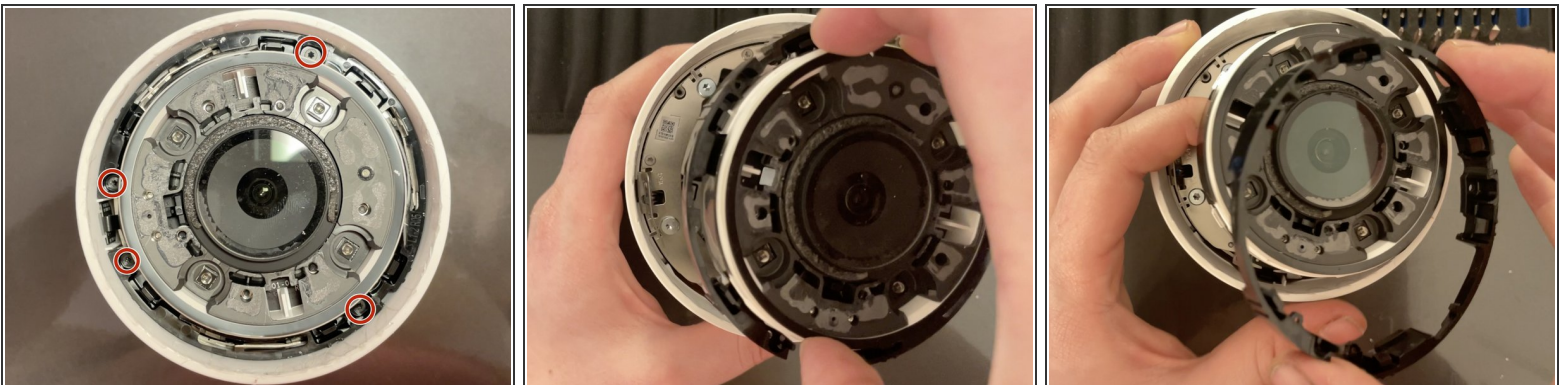
Step 3 — Remove the LED Ring



⚠ Verify all connectors are unplugged before continuing with this guide.

- i** Take care prying as there are three ribbon cables attached to the led light ring. Two for microphones, and one for the status LED. They are connected at the Camera Module and the components are lightly attached using some double-sided tape to the LED Light Ring.

Step 4 — Remove plastic camera securing ring



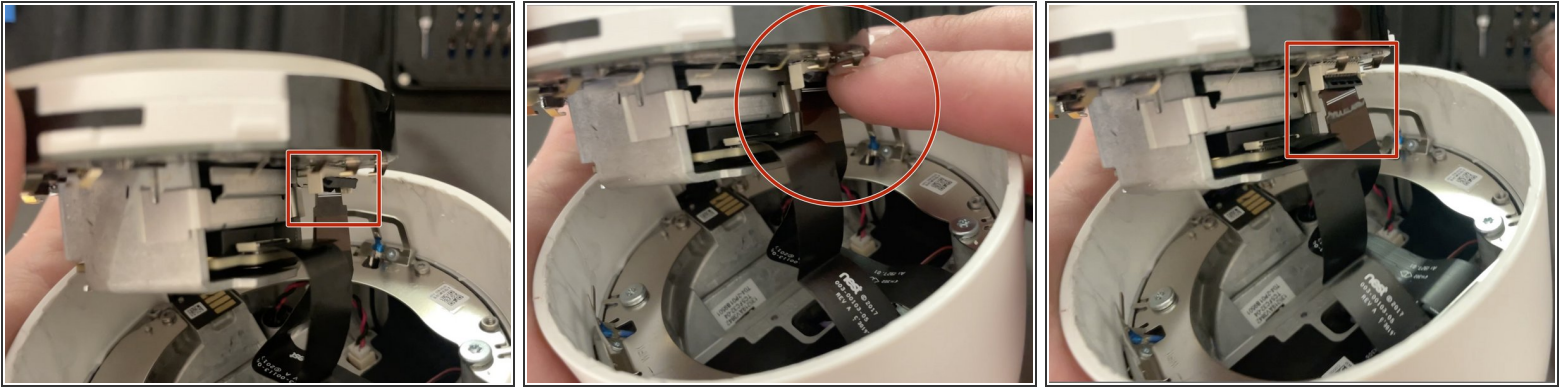
- Remove each of the four screws securing the plastic ring that is holding down the camera module.
- Pull the camera module upwards, and remove the black ring from around it by pulling it upward and over the camera module.

⚠ Be careful not to knock into the metal wifi "fins" that stick up right next to where the black plastic ring sits. If things feel stuck, pause and verify it is not caught up.

📌 Reminders

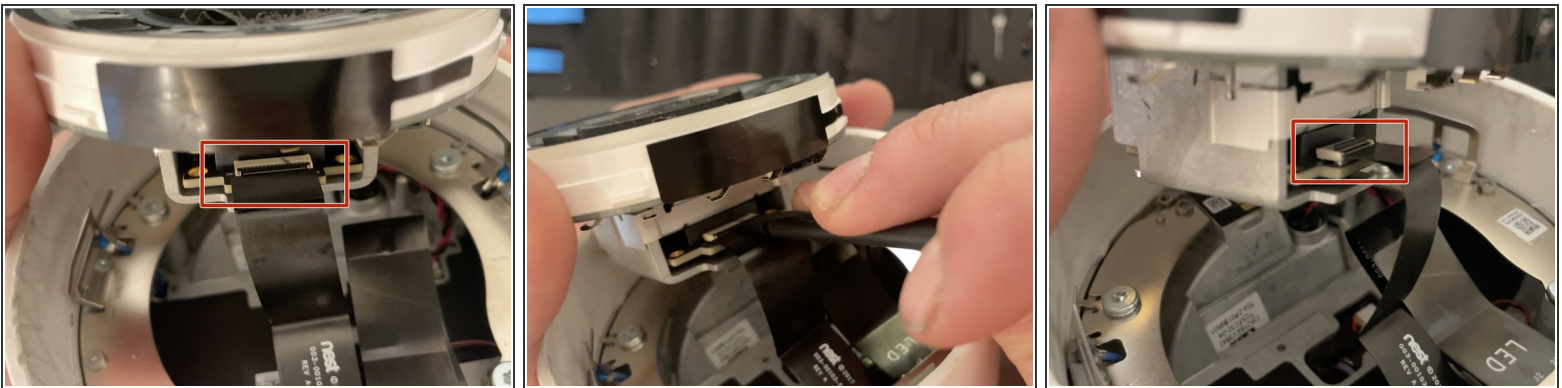
- 4 x 4.5(?)mm Torx T5 screws

Step 5 — Unplug LED ZIF Connector



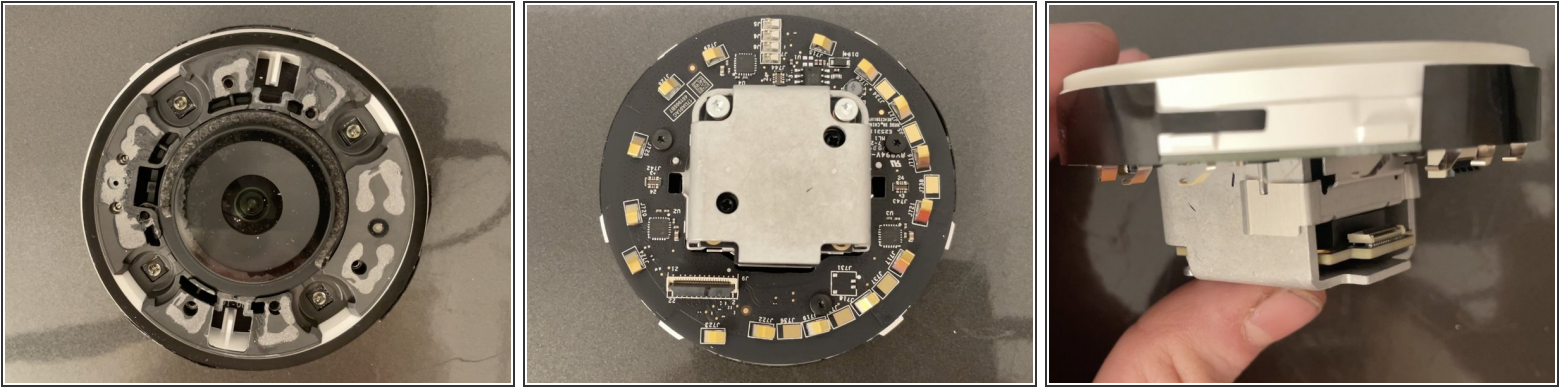
- Lift the camera module up and out of the housing.
 - Using your fingernail pull down on the black portion of the ZIF connector to flip it into the down position.
 - Slide the LED ribbon cable out of the ZIF connector.
- i** You should not have to use ANY force at all to remove the ribbon cable. If you find yourself using force, pause and verify you have flipped down the ZIF connector properly.

Step 6 — Unplug the Camera



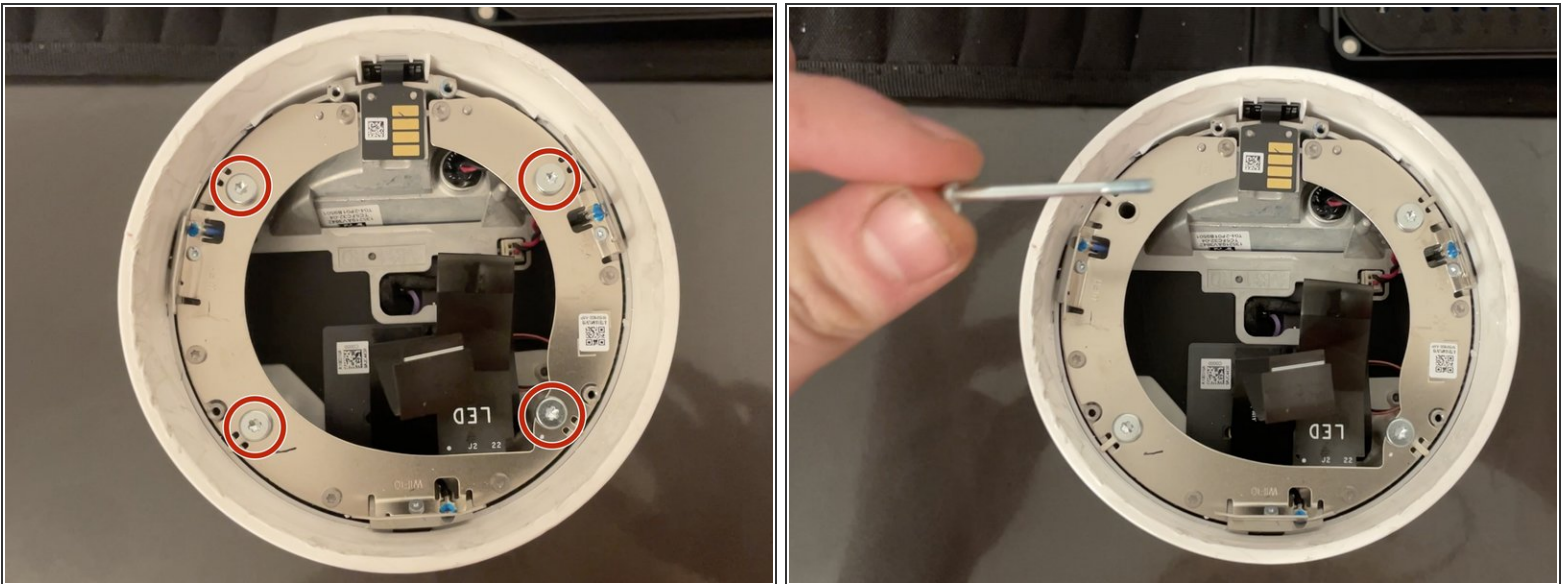
- Using a flat plastic spudger push upwards on the black portion of the ZIF connector to flip it into the up position.
- Slide the camera ribbon cable out from the connector.

Step 7 — Set the camera module aside



⚠ You can now set the camera module aside, if you wish to disassemble it further do so at your own risk.

Step 8 — Remove Motherboard Module screws

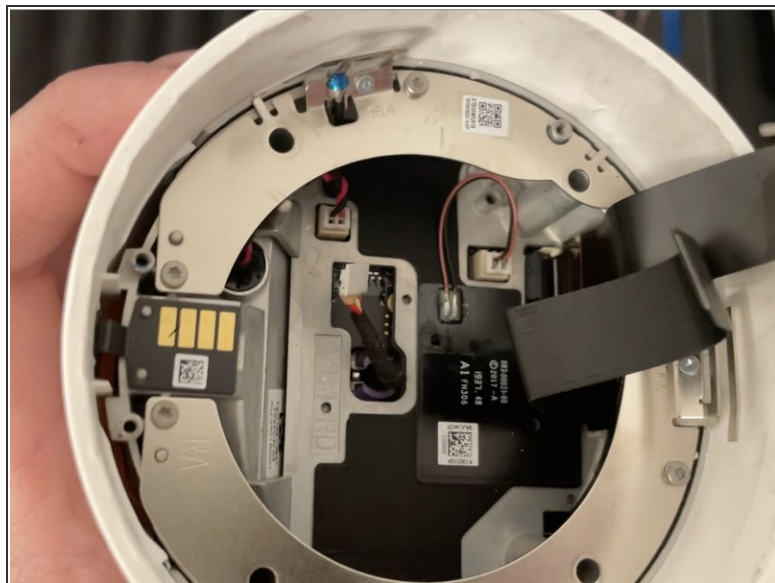


- Remove the 4 long screws holding the motherboard module into the camera.

Screws used

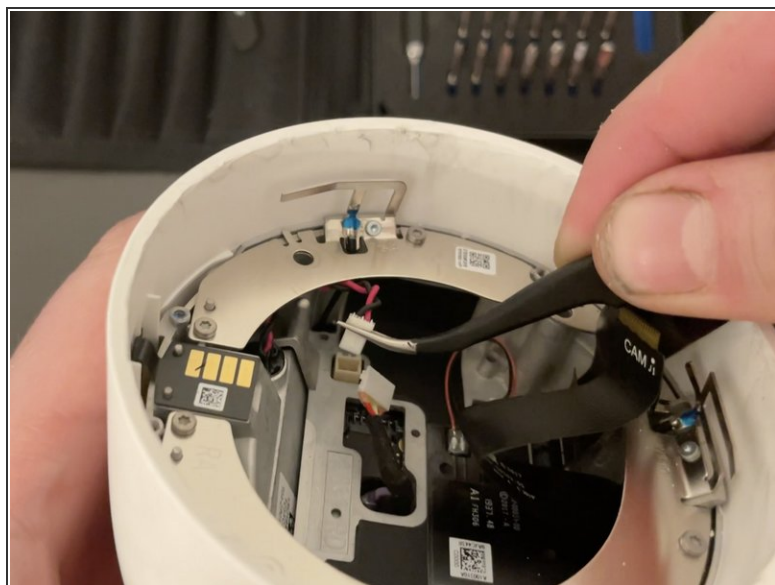
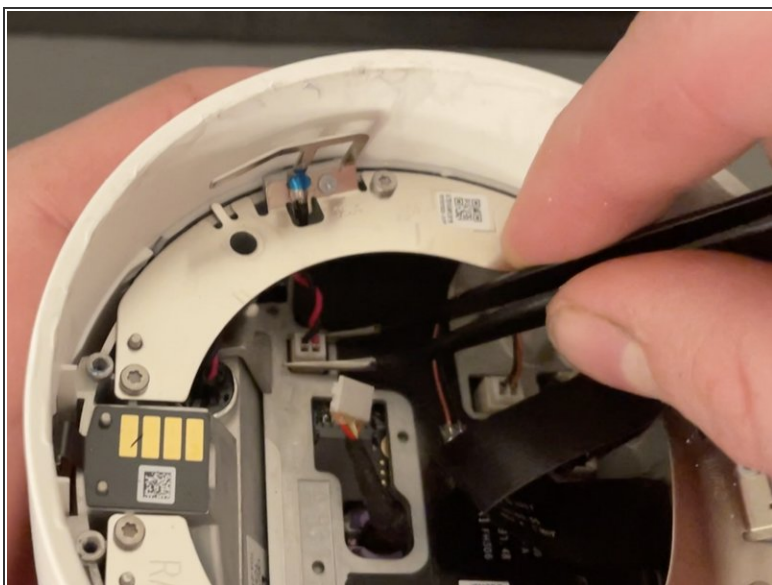
- 4 x 31mm Torx T9H screw

Step 9 — Unplug power connector



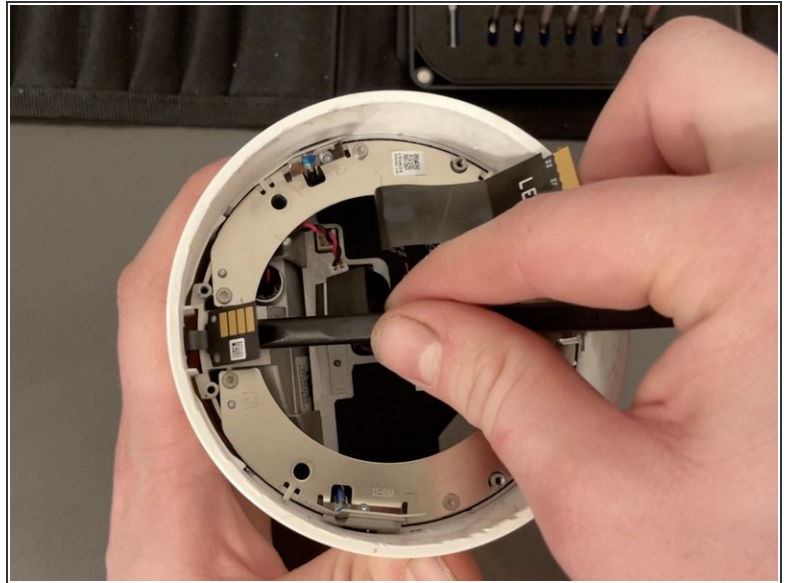
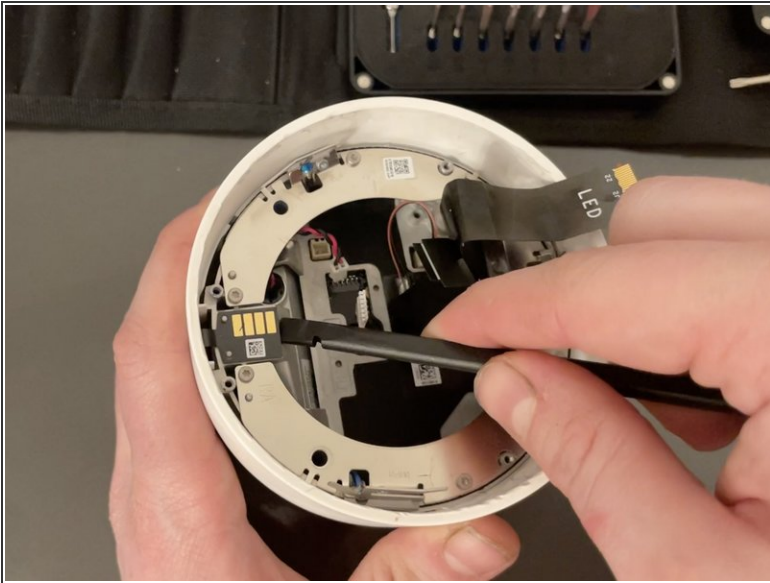
- Using your fingers unplug the power connector by gently pulling upwards on the cable until the connector comes out of its socket.

Step 10 — Unplug speaker connector



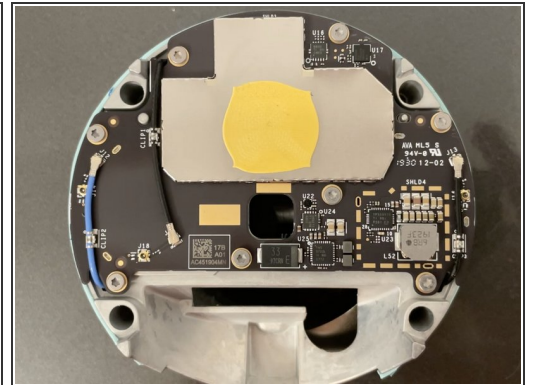
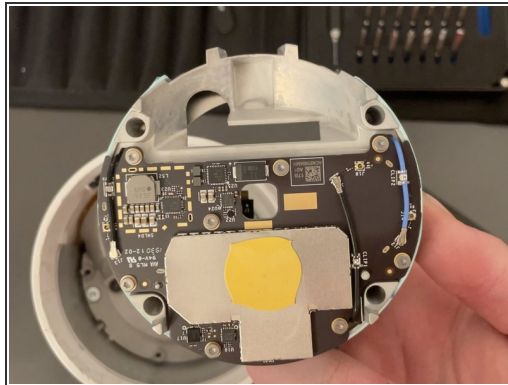
- Unplug the speaker connector next to the power connector by gripping it with metal tweezers and gently pulling directly upward.

Step 11 — Lift Power Transfer Pad



- Using the flat spudger slide it under the power transfer pad to separate the glue holding the pad down.
- Fold it up out of the way.

Step 12 — Lift Motherboard Module Out



- Using both hands, gently pull upwards making sure the power cable, speaker cable, and power pad route down through/around the motherboard module as you pull it upward.

Step 13 — Remove Speaker Module Screws



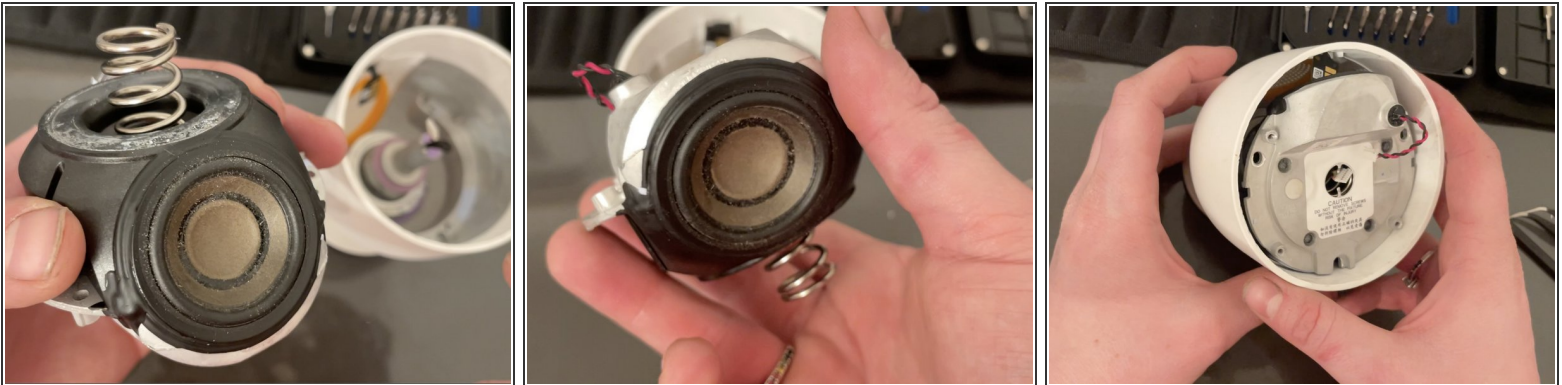
⚠ The spring that is under this module is quite powerful. While removing screws you must press down with significant force in order to remove the screws. If you do not hold down the module, it will be much more difficult to remove the screws.

- Remove the three screws holding down the speaker module.

🔧 Screws Used

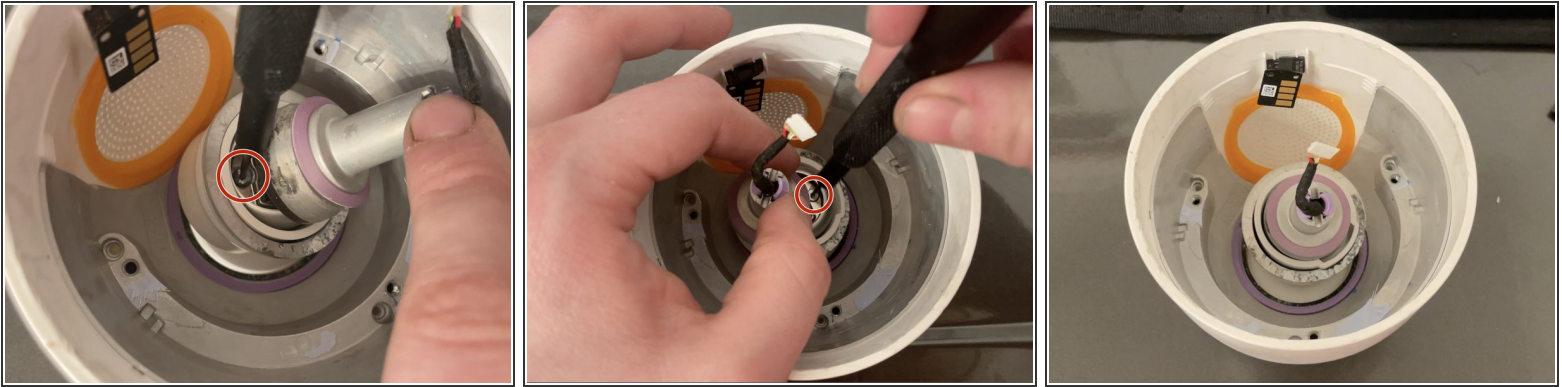
- 3 x Torx T9 4.5(?)mm Screws

Step 14 — Remove Speaker Module



- Lift the Speaker Module and Spring out of the case, threading the power cable down through the middle.
- ⓘ Because this was a dead unit being disassembled there is water damage on the bottom of this speaker module.

Step 15 — Remove Power Board Screws



- Bend/move the power cable to the side and remove each of the two screws holding down the Power Board.



Screws Used

- 2 x Torx T5 3(?)mm screws



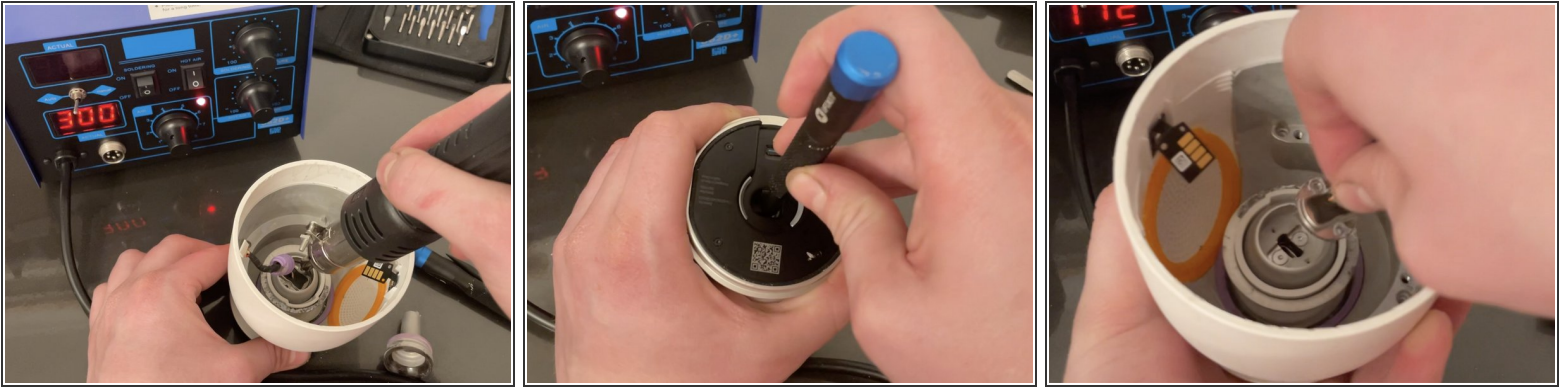
Performing Step 16 first can make this step easier.

Step 16 — Remove Power Cord Housing



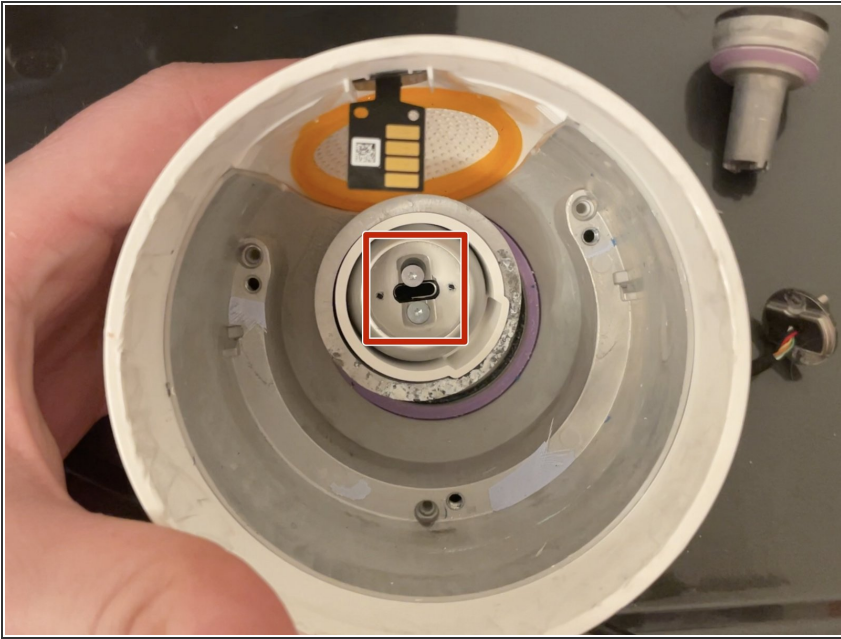
- Using a pair of metal tweezers push on the two pink rubber bits on the top of the power cord housing and push downwards to slide the power cord out of the housing.
- ⓘ The power connector has a pretty tight fit at the top of the power cord housing, take care when trying to push the power connector through.

Step 17 — Remove Power Board



- Using a heat gun melt the glue holding down the power board. The glue is placed directly under where the previous two screws were removed.
 - Using a thin tool (ideally a Male USB-C connector affixed to a rod) press out the power module. I do use the thinnest flathead screwdriver here to push on it, however this will likely damage the connector.
- ⚠ If attempting board level repair on the power board, use extreme care and caution pushing out the power board to prevent damaging the connector.**
- i** There is a thick slightly soft black goo covering a majority of the power board. It holds down the metal shield very tightly. It is unknown how to remove this black "goo", please leave a comment if you can get it off cleanly!

Step 18



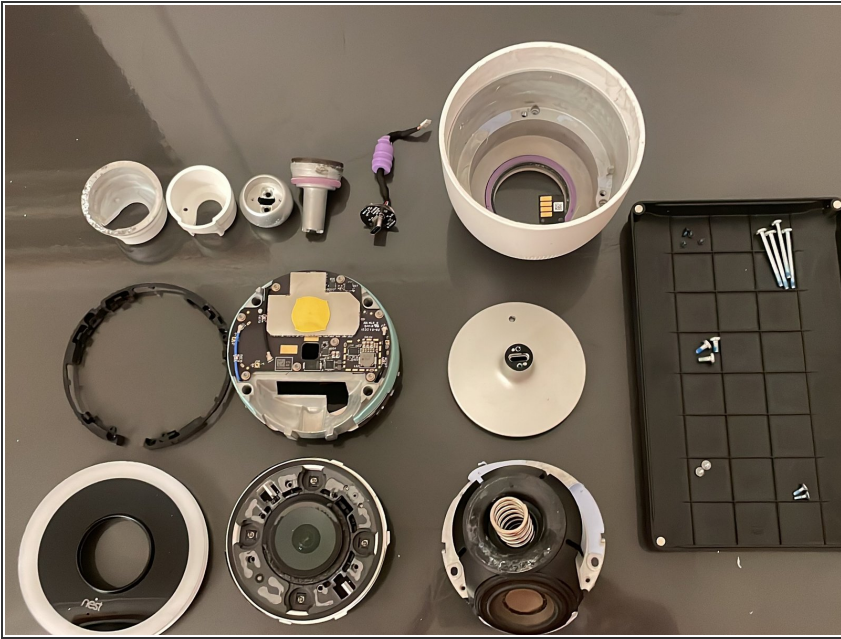
- Remove the final two screws to release the base ball joint from the inside of the housing.



Screws Used

- 2 x Torx T5 3(?)mm screws

Step 19 — Disassembly Complete!



- You are now done disassembling the unit to the module level! Check out the other guides (coming soon) to see how to break down the modules further.

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

The Camera module and LED Ring should first be connected together with the microphones and status LED properly glued to the back of the LED Ring and the connectors are attached to the camera module.

When “re-sealing” the camera the Camera LED Ring combo assembly should be attached to the ribbon cables, then pressed/snapped down into place (into the black plastic ring with clips that hold down the camera module).