



# Nest Outdoor Camera USB Cable Replacement

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## TOOLS:

- [Soldering Workstation](#) (1)
- [Wire Stripper](#) (1)
- [Heat Gun](#) (1)



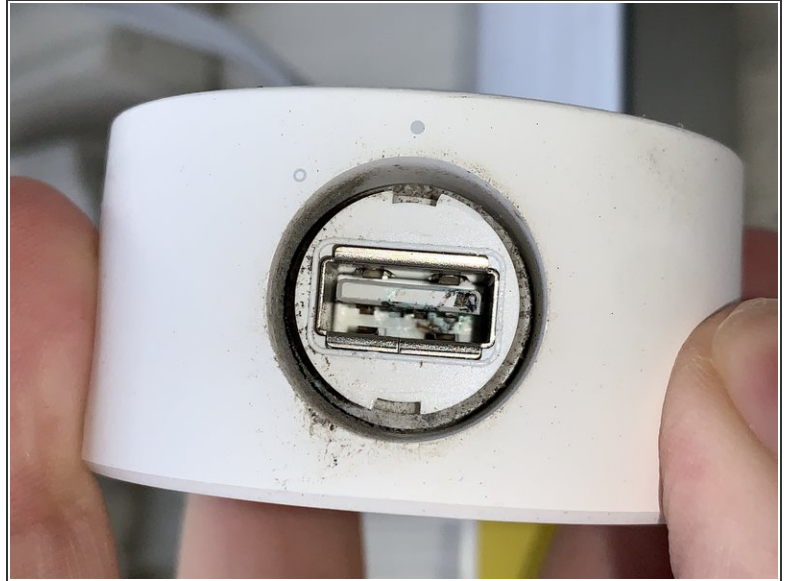
## PARTS:

- [heatshrink tubing](#) (1)
- [USB-A to USB-C 3.1 Cable](#) (1)

### USB 3.1+ A

*Due to the power requirements of the camera, you need a USB 3 or higher cable with an A connection. I used this one*  
*[https://www.amazon.com/UGREEN-Transfer-Enclosures-Printers-Cameras/dp/B00P0E3954/ref=sr\\_1\\_11](https://www.amazon.com/UGREEN-Transfer-Enclosures-Printers-Cameras/dp/B00P0E3954/ref=sr_1_11)*

## Step 1 — USB Power Cable Corroded



- The Nest Outdoor Camera (not to be confused with the Nest IQ Outdoor Camera) gets power through a long USB cable that connects to a power adapter, which connects to an outlet. The USB connector is not as waterproof as advertised, and this one got wet, became corroded, and the camera stopped working.

## Step 2 — Evaluate the condition of both power cables



- Take a close look at the USB power adapter (which runs from the outlet to the USB hub) and the USB cable (which runs from the USB cable to the camera). Are they both corroded?
- Google/Nest no longer supports or makes this product, so replacement power adapters are hard to find. Fortunately, this power adapter is functionally a phone charger cube, which converts wall power to 5V 1.4A USB power. It can be replaced by any comparable charging adapter that outputs 5V and 1.4+Amps in a female USB A port.

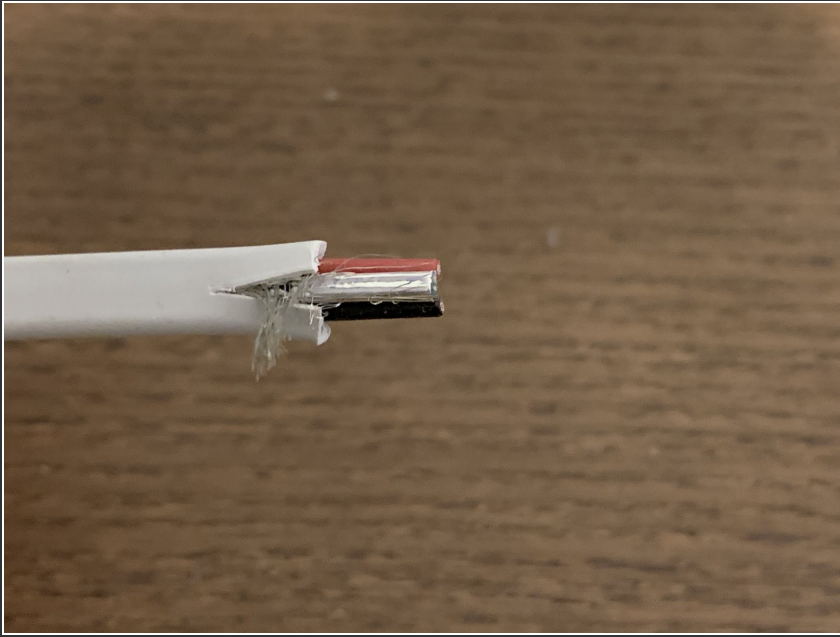
## Step 3 — Determine cable length



- If you're removing the power adapter from the setup, your required cable length may change. Measure how far you need the power cable to run. When I did this, I added an outdoor USB outlet near where the camera would (re)mount, so I chose to make the cable significantly shorter.
- Measure the camera USB cable (from the camera, not the USB) to your desired length. Give yourself a few extra inches in chase you cut the wires while stripping.

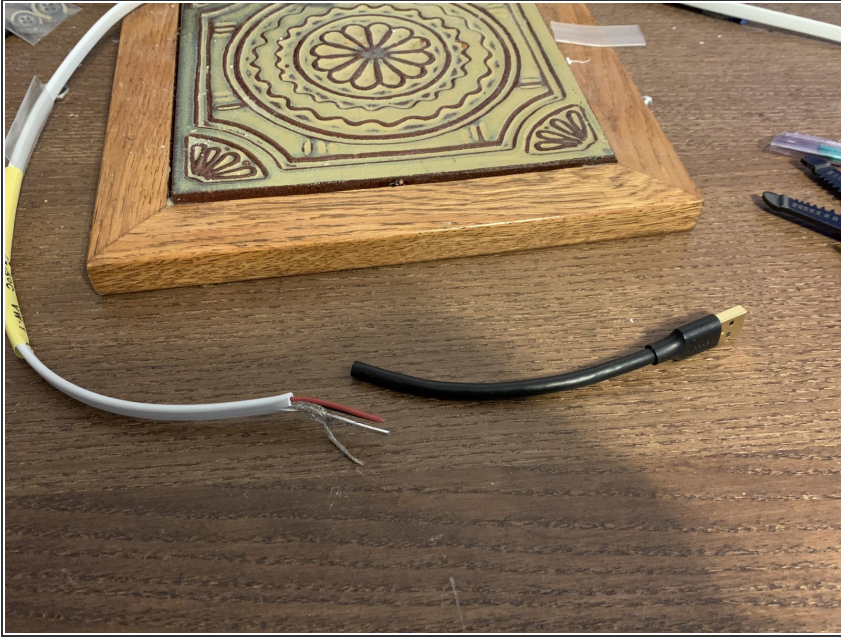


## Step 4 — Cut and Strip the camera cable



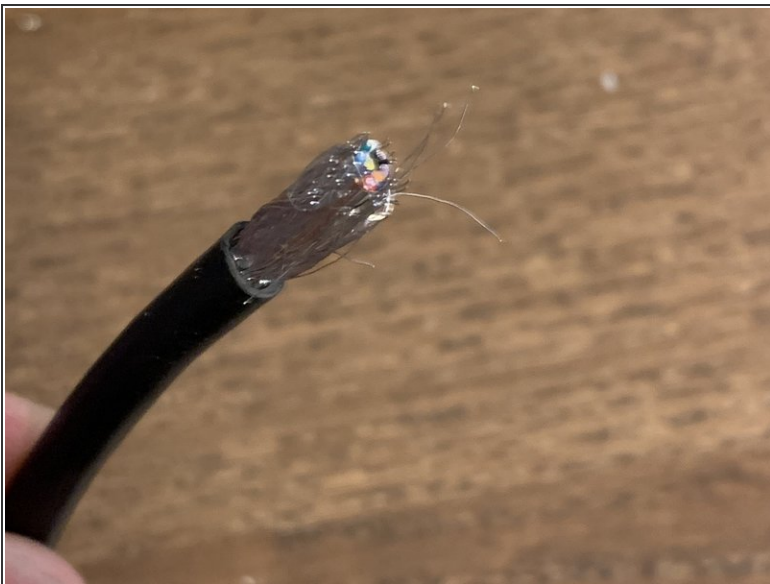
- Cut the camera cable at the desired length using wire cutters.
- Carefully begin stripping the white sheathing. I found that a careful incision with an Xacto knife along the length of the sheathing helpful to get started. Use scissors or wire cutters to remove excess insulation once pulled off the wires.
- I stripped the wire ~2 inches (which is longer than shown in this photo).
- You should see a red wire, a black wire, and two other wires bundled in an additional sheath. There may also be loose wire mesh around the wires, which you can pull away and cut off.

## Step 5 — Cut the new USB cable



- Figure out what length of new USB cable you want and cut it to that length. Leave a few extra inches in case you cut the wires while stripping

## Step 6 — Strip the USB cable



- Carefully strip 1-2in of the outer plastic from the USB cable. You'll likely see some wire mesh and/or foil. Peel those away.

## Step 7 — Strip the Red Wires



- Sorry - I stopped taking photos at this point.
- Carefully strip ~1inch off the red wire on the camera and the USB cable. They will probably be stranded core (made of lots of smaller wires). Twist each wire to make the stranded core more solid.

## Step 8 — Add heat shrink tubing



- It's very easy to forget this step when splicing. Slide several heat shrink wrap tubes over the prepped wires. You'll want a small one on the red wire and black wire and several much larger ones on the camera cable for putting it all together later.
- Heat shrink wrap tubing is cheap - you're better off having an extra tube on the wire that you don't need (and can carefully cut off later) than being one short and having exposed wires.

## Step 9 — Splice the Red Wires



- There are lots of [good tutorials online](#) on soldering and splicing wires.
- Using your favorite method, splice the red wires together. Solder them well.

## Step 10 — Heat Shrink the red wires



- Slide your heat shrink tubing from further down the red wires until it covers the spliced connection. Use a heat gun to shrink the tubing into place.
- Be careful not to shrink the tubing around the black wires or the camera cable.



## Step 11 — Splice and heat shrink the black wires



- Same exact steps here with the black wires. It doesn't matter which color wire you do first - I have them listed as separate steps to limit potential mixups.
- There will likely be other wires in both USB cables. They're not needed for power and can be ignored.

## Step 12 — Heat shrink tube both wires



- Now you're done with soldering.
- Slide your heat shrink tubes from the camera cable down to the red and black spliced wires. Use the heat gun to shrink the tubes into place. You may need multiple tubes.

## Step 13 — Plug in the camera



- If all went well, you're now done!
- Plug the camera into its power adapter (or a comparable USB power supply). If the blue light turns on, it works!

Great work! Plug the new USB cable into the power adapter (or a comparable USB power supply) and wait a moment for the camera to turn on. If it works, you'll see a blue light and then a green light. Use the Nest app to setup the camera, if necessary.