

Washing Wearable Electronics

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Overview

The most common question we get regarding wearable electronics is "how do you wash that?"

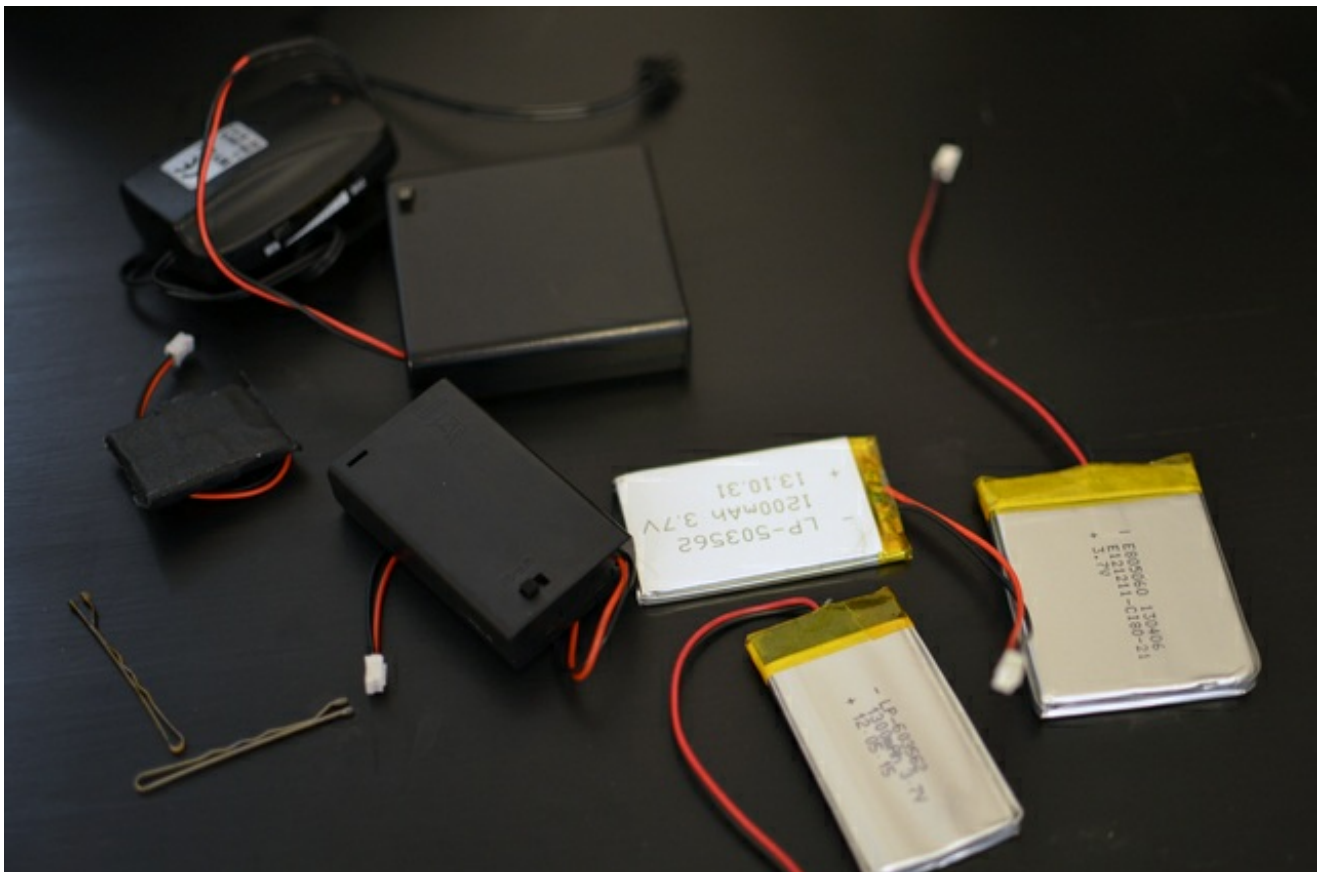
This guide covers the most common ways to launder your DIY wearable electronics projects.

First, and always: remove the batteries! The fiberglass, plastic, and metal comprising most circuits can handle getting wet and a bit of agitation, but your batteries should never be bent, shorted, or be subject to water or heat.

Second, read the label on your garment. Machine wash? Dry clean only? Consider what it's made from primarily, then consider what components are in your circuit.

Components that can fill with water, like the microphone in the Ampli-Tie, should never be submerged in water. FLORA, conductive thread, and even EL wire can get wet, so long as it completely dries before you plug the battery back in.

If you hand or machine wash your wearables, we strongly recommend hanging them up or laying flat to dry. These methods are vastly preferred over using the dryer, which adds even more agitation to your delicate circuit.



Hand Wash





Fill your sink with lukewarm water and a little bit of detergent (woolite or hand-wash specific detergent is nice, but not absolutely necessary), make sure your batteries are removed, and suds up your project. Keep sensitive components like microphones out of the water, but circuit boards like FLORA, NeoPixels, conductive thread, etc. can be safely dunked.

Rinse thoroughly and hang up or lay flat to dry. If your garment holds a lot of water like the Chameleon Scarf, for example, roll it up in a towel and squeeze out any excess water before reshaping and laying flat to dry.

The faster your garment dries, the lower your risk of any oxidation on circuit contact pads. Since our wearable PCBs have gold-plated pads and our conductive thread is stainless steel, oxidation risk is minimized.

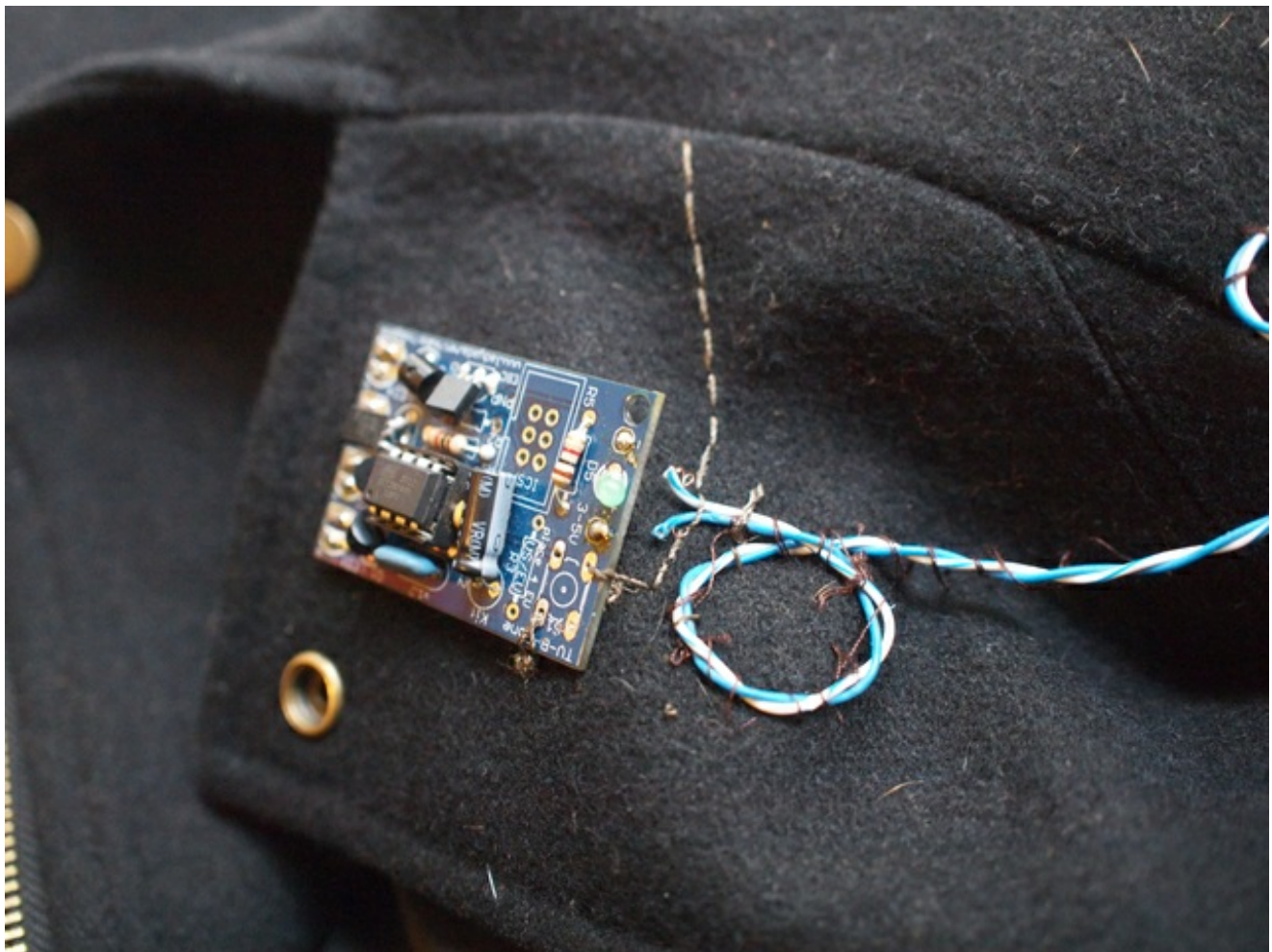
Beware: silver conductive thread oxidizes over time and washing speeds up this process!

Dry Clean



If your garment's tag says "dry clean only," you don't necessarily have to oblige. Typically I only take things to the dry cleaner if I absolutely know getting the thing wet will ruin it, like my wool coat and silk blouses. Sometimes fancy things say "dry clean only" because the buttons might tear off in the washer-- hand washing would be fine, then!

Dry cleaning is not a more delicate process than hand-washing! It still agitates the garment and can use some pretty harsh chemicals. Only use this option if you have no other choice.



The TV-B-Gone jacket came back from the dry cleaner squeaky clean! The agitation can cause wire junctions to break, as seen in the above picture. Actually, the jacket's wires broke before I got

it cleaned! If something on your project needs repair, it's a perfect time to clean it. That way if something else breaks, you can make all the repairs at once.

Machine Wash



If your garment is free of components that can fill with water (microphones, hollow-cased switches, etc.) and can usually go in the washer when it's not adorned with electronics, it still probably can! Agitation will increase the natural wear on any garment and circuit, so be sure to inspect the wearable for frayed threads, loosened stitches, or damaged components.

Line or lay flat to dry, and only then should you plug the batteries back in!

