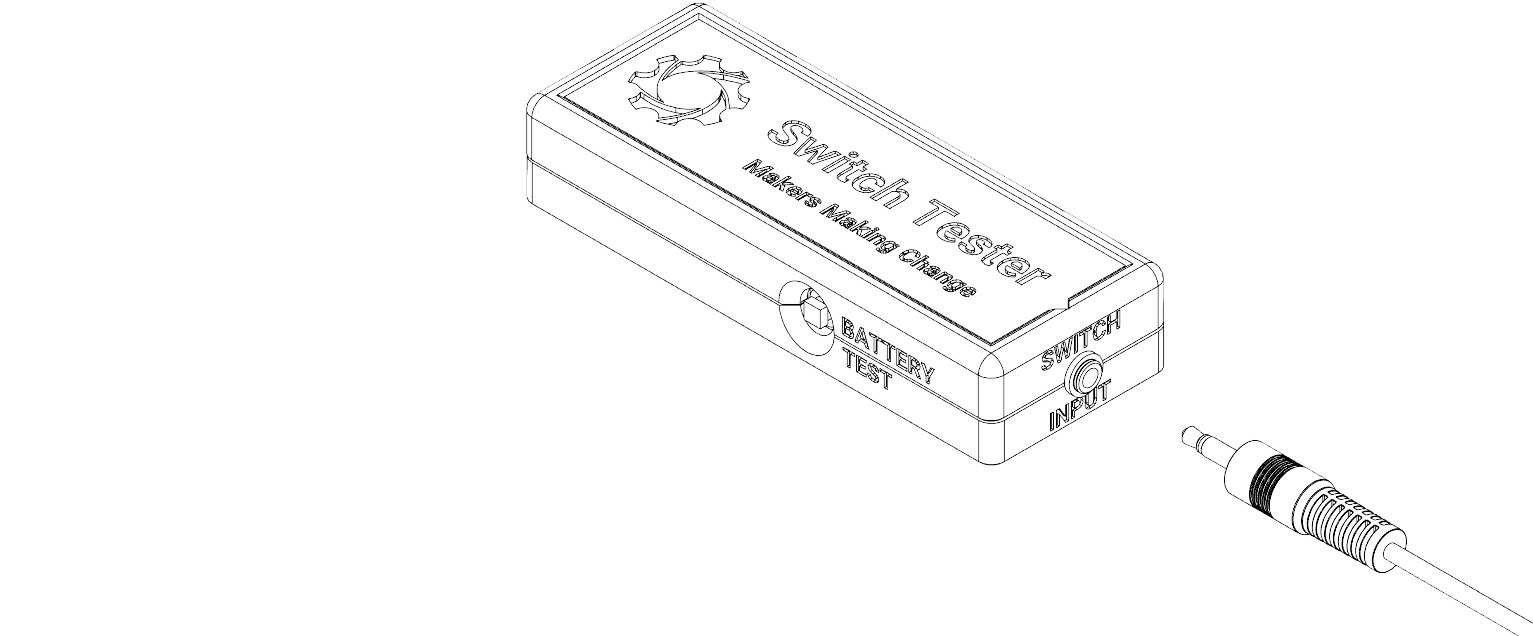
Introduction

The Simple Switch Tester is a device that enables the user to test the switch they have built, in order to determine if they assembled it successfully and that all the components are working. When a switch is plugged into the 3.5 mm jack and activated, an LED will light up indicating a successfully operating switch. The device can be used at build events to test a series of switches, or at home during a digital build event. The switch tester is a simple device made up of six main components: the 3.5 mm jack, a AAA battery holder, two AAA batteries, an LED, a 68 Ω resistor, and a tactile switch working in parallel that can test the batteries as well as the switch. The total cost of the device is well below other equivalent devices on the market by sourcing inexpensive components and utilizing FDM 3D printing.

Features



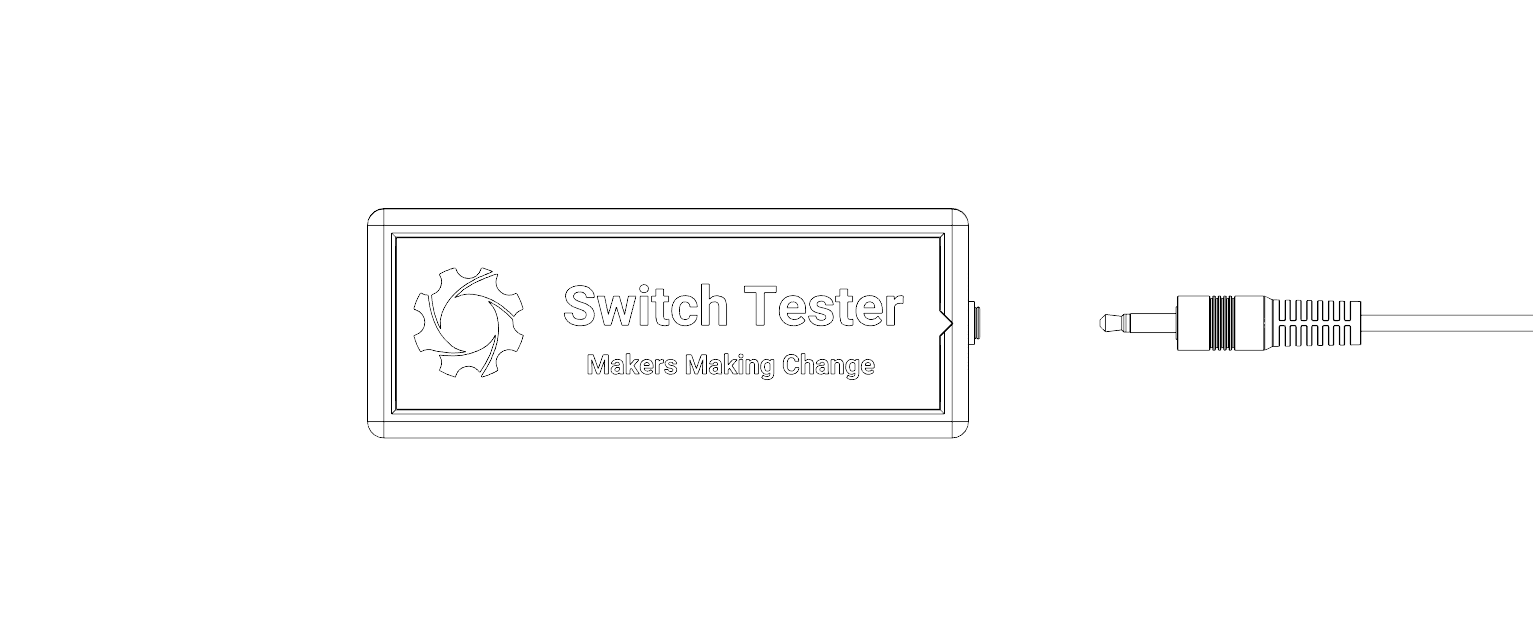
Specification

|  |  |
| --- | --- |
| Size | 11 x 4.2 x 2.1 cm |
| Jack | 3.5mm |
| Disinfection | Ethyl Alcohol, Isopropyl Alcohol, Hydrogen Peroxide |

Usage

*Testing an Assistive Switch*

1. Plug an assistive switch into the 3.5 mm jack on the end of the enclosure.



1. Test the assistive switch by activating it. The LED should turn on.

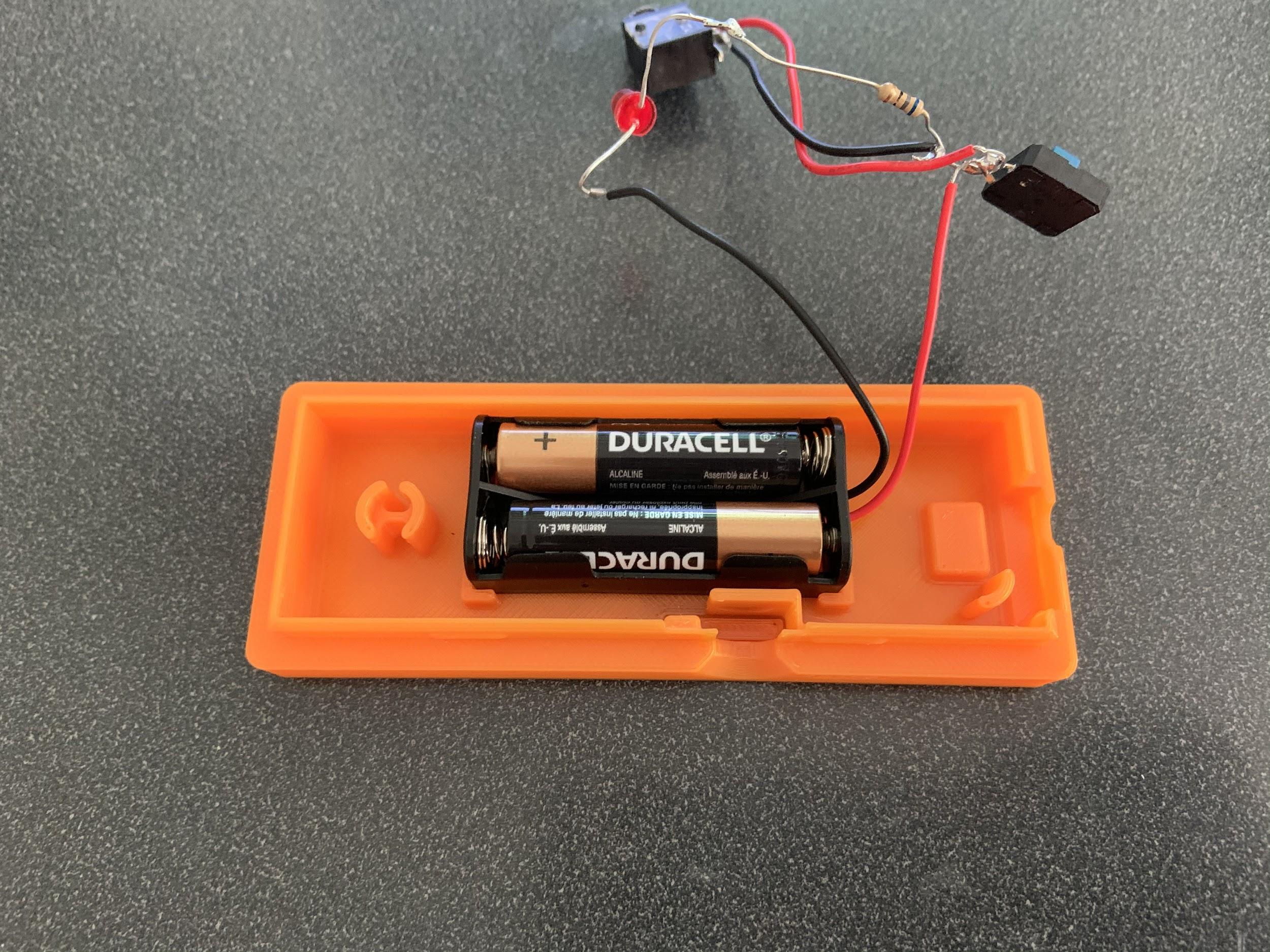
*Testing the Batteries*

Test the batteries by pressing the button on the side of the enclosure labeled “BATTERY TEST.” If the batteries are working, the LED should turn on. If the LED doesn't turn on, follow the steps below to troubleshoot.

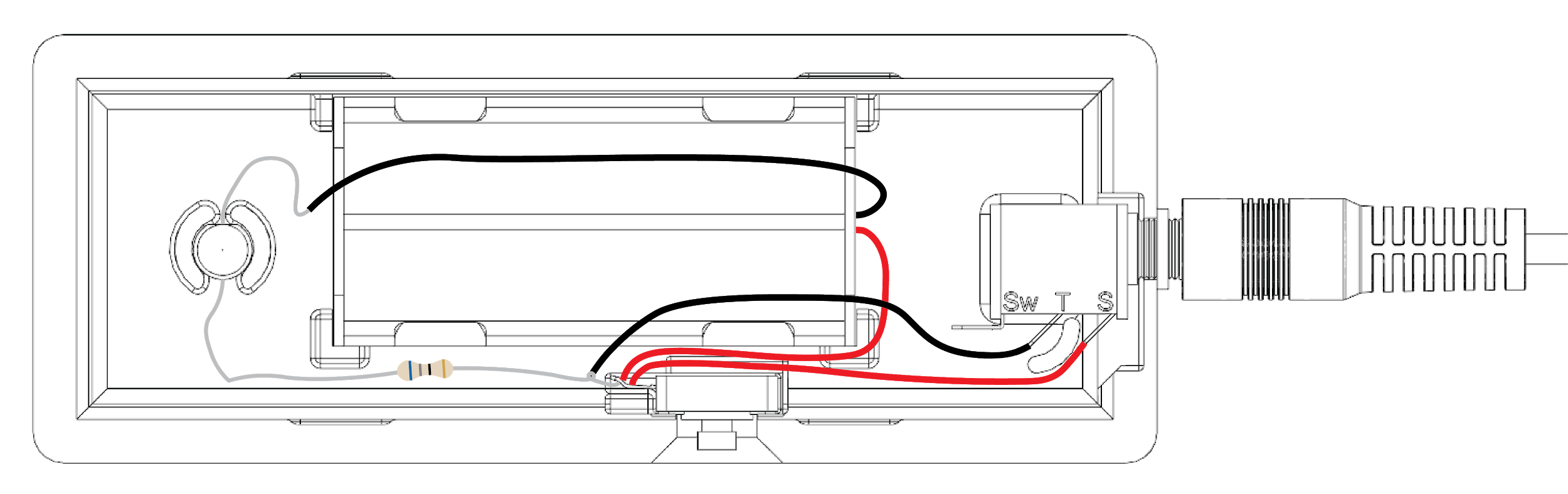
Troubleshooting

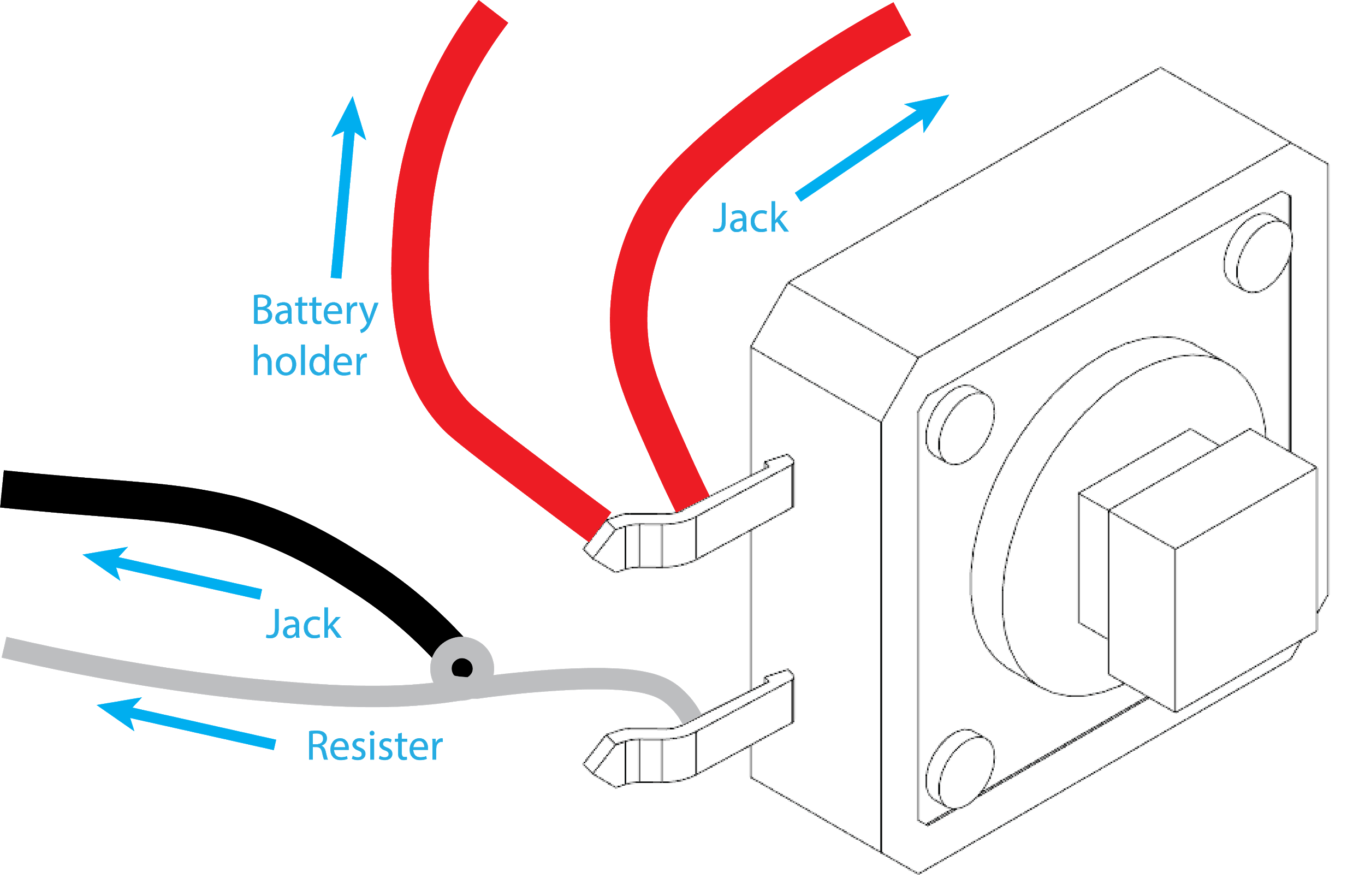
The LED doesn't turn on when the “BATTERY TEST” button is pushed:

1. Check that the batteries are fresh and installed in the correct direction (indicated on the battery holder).



1. Check to make sure all the wires are connected correctly and in the right spots.





The LED stays on all the time:

1. Make sure the wires are not accidentally touching each other or soldered together incorrectly.

The LED turns on when the test button is pushed, but not when the assistive switch is activated:

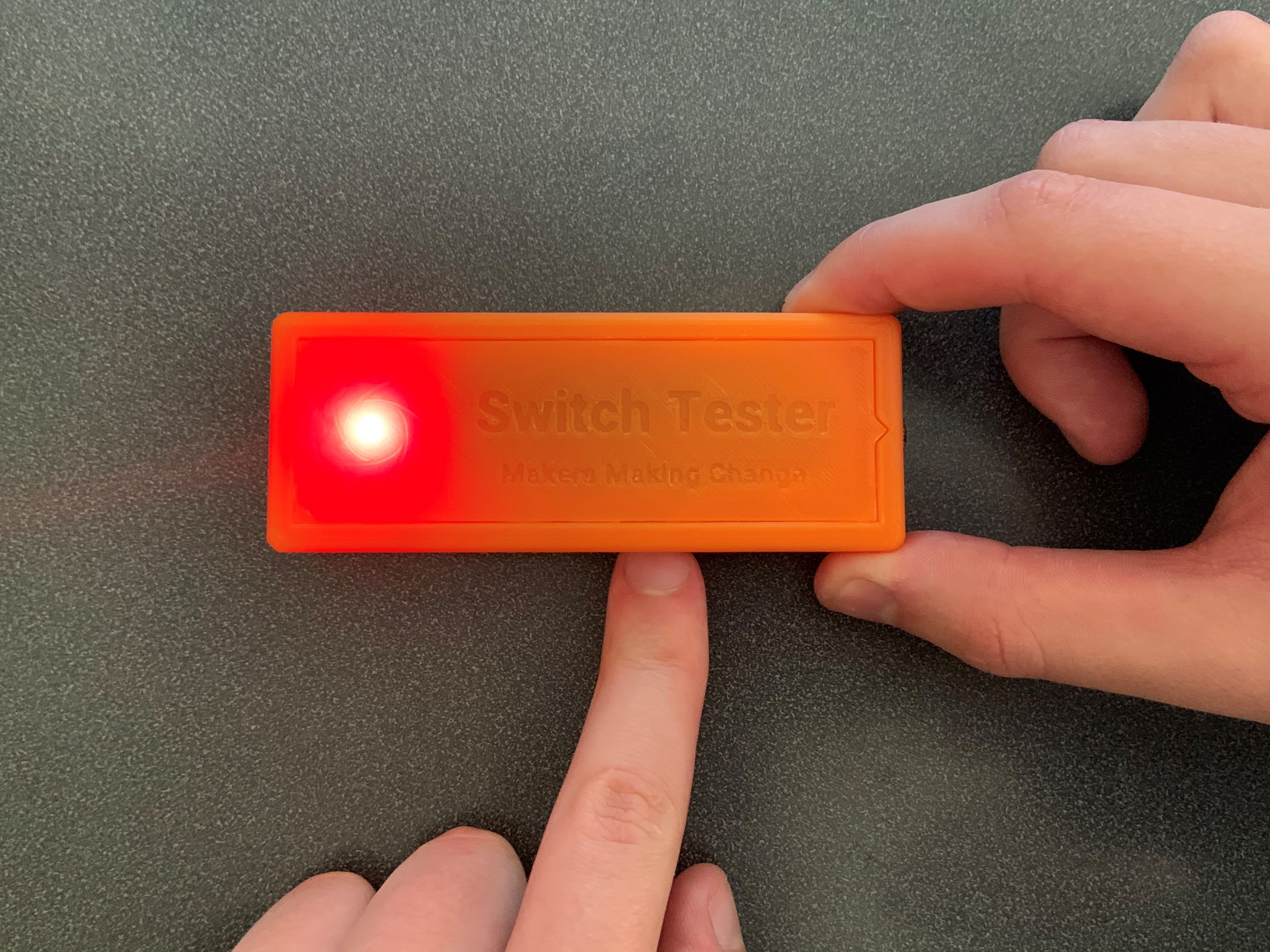
1. Check to ensure the assistive switch is plugged into the jack correctly/all the way.
2. The assistive switch may not be assembled correctly/not working.

*Replacing the Batteries*

1. Loosen the 3.5 mm jack nut without removing it and pull apart the two halves of the enclosure, exposing the electronics inside.



1. Remove the old batteries and dispose of them appropriately (recycle or recharge).
2. Insert the two new AAA batteries and reassemble the enclosure, snapping the two halves back together and tightening the 3.5 mm jack nut.
3. Test the device by pressing the “BATTERY TEST” button to see if the LED is activated.



Cleaning

*Exterior:*

1. Wipe the exterior of the enclosure with a damp cloth.

*Interior:*

1. Loosen the 3.5 mm jack nut without removing it and pull apart the two halves of the enclosure, exposing the electronics inside.
2. Carefully remove the electronic components.
3. Wipe the interior of the enclosure with a damp cloth.
4. Ensure the interior is dry before placing the electronics back in their spots.
5. reassemble the enclosure, snapping the two halves back together and tightening the 3.5 mm jack nut.