

TORNADO LAMP SWITCH MODIFICATION INSTRUCTIONS

Toy: [Tornado Twister Lamp](#)

You will need:

- 3x AA Batteries
- 2x 5" 22 AWG wires
- 1x panel mount switch jack
- Drill
- Soldering iron with solder
- Small Phillips screwdriver
- Wire cutter & stripper

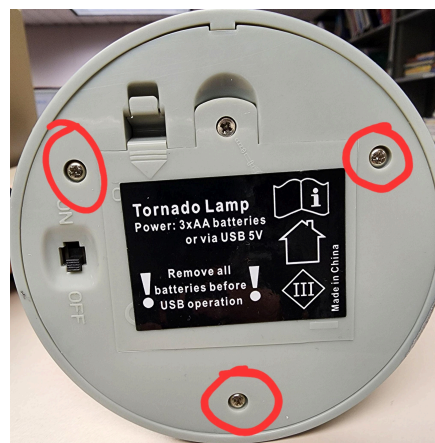


TWO VERY IMPORTANT FIRST STEPS!!!

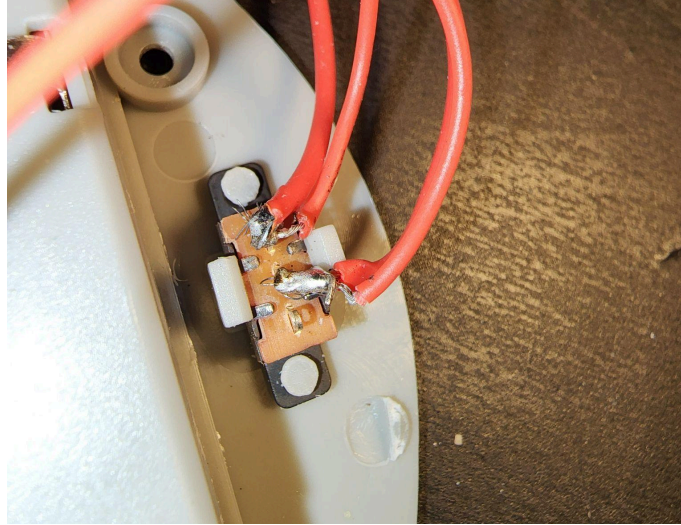
- Open the packaging very carefully, so you can repackage it nicely to deliver to a kid as a gift. (No one wants a new toy in a torn up package for the holidays!)
- Test the toy to be sure it works properly BEFORE attempting ANY modification!

Steps:

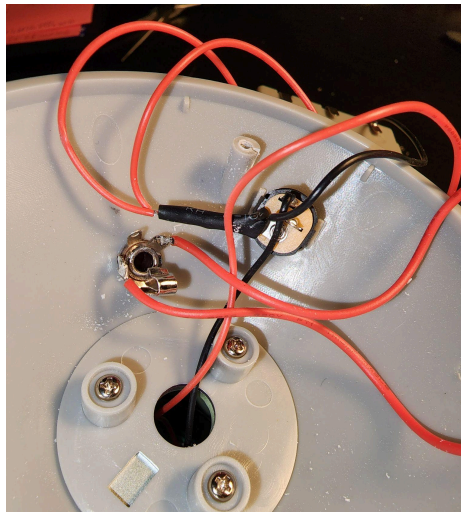
1. There is a USB power cord in the package with the lamp. Throw this cord away. This toy cannot be used with both batteries and a power cord (i.e batteries must be removed before using the power cord to power this toy or it could destroy the toy.) We feel that these directions are confusing and could be misunderstood so we are going to eliminate the power cord option to prevent the toy from being accidentally destroyed.
2. Remove the batteries from the toy. Remove the 3 screws from the bottom of the toy and pull out the bottom panel to reveal the electronics of the toy.



3. Find the on/off switch on the inside of the back panel. There are 2 wires attached to the switch. You need to solder the 2 new wires included in your kit in the same place these existing 2 wires are attached on the switch. When you are finished with this step, there will be 2 wires each attached to 2 of the 3 legs on the switch as shown below.



4. Solder the other ends of both of the new wires to opposite legs of a panel mount switch jack.
5. On the lamp, find the inside of the power jack (where the USB power cord would have plugged in). From that jack, drill a $\frac{1}{4}$ " hole approximately $\frac{1}{2}$ " to the lower left of the power jack (see photo below). This location should allow enough clearance to close the bottom compartment without the battery case hitting the switch jack.



6. Secure the switch jack in the $\frac{1}{4}$ " hole using needle nose pliers to be sure it is tight.
7. Replace the bottom panel on the lamp being careful not to pinch any of the wires and secure the 3 screws.
8. Replace the batteries and test the toy with a test switch.



Thank you for using your maker skills to create fun toys for students in our community. Your work is very much appreciated by Tinkered Toy Box and, of course, by the students that will find joy in playing with this toy and build skills that will be useful throughout their life.



Giving the Gift of Play