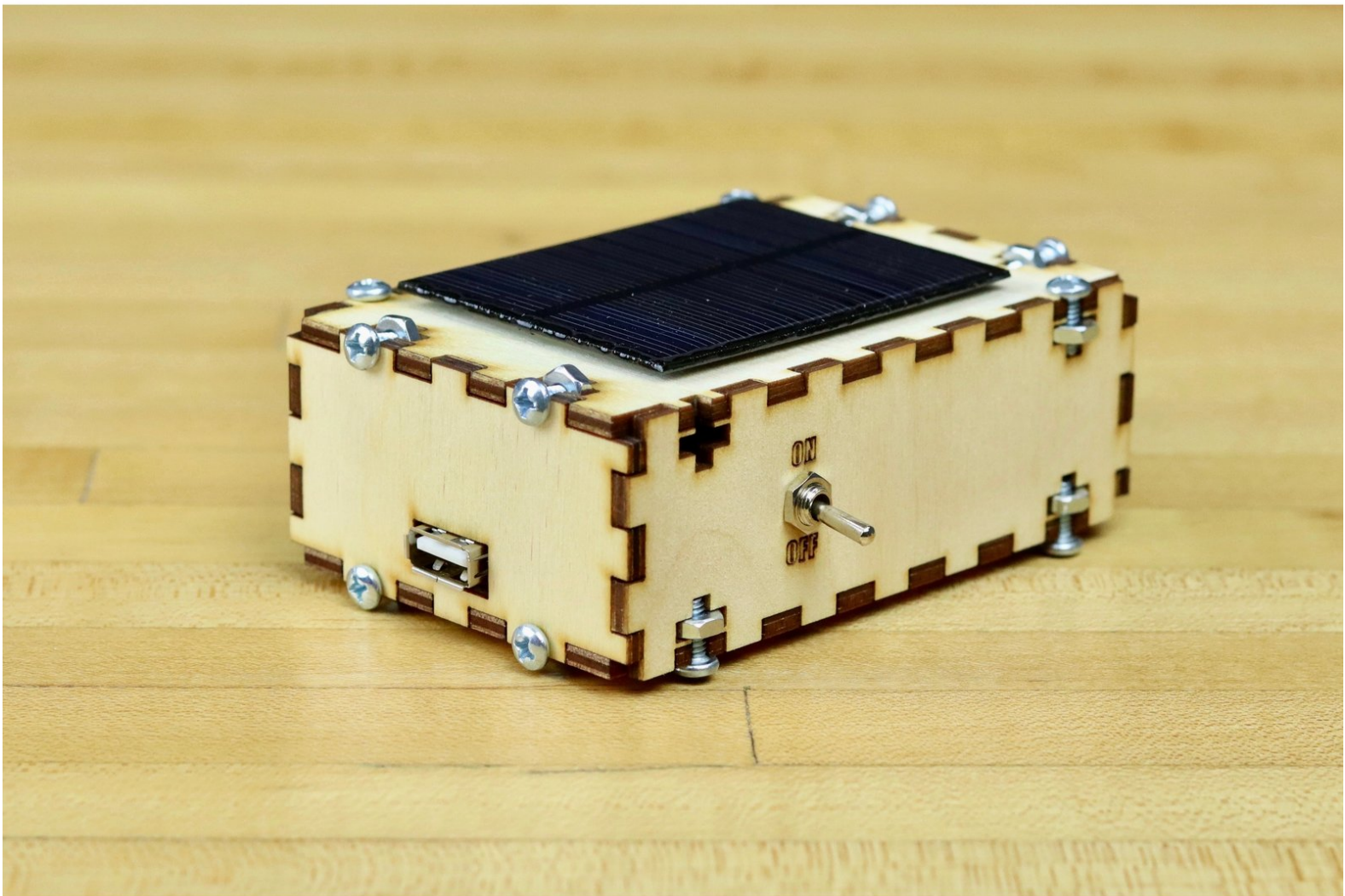




Solar USB 2.0

Guide and directions on how to make the Solar USB 2.0 Kit.

Written By: Joshua



INTRODUCTION

The Solar USB 2.0 Kit is a great way to create a simple solar powered USB charger. The project requires a bit of simple soldering, but can easily be completed by someone who has never soldered before.

- The printable PDF has some updates to reflect the new USB circuit that we're using.



TOOLS:

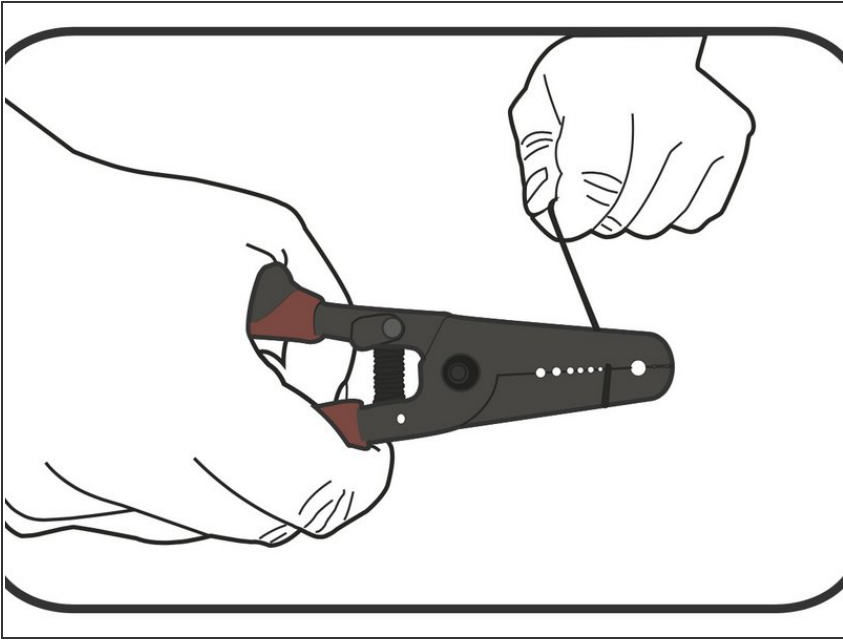
- [Soldering Iron](#) (1)
- [Wire Strippers](#) (1)
- [Phillips Screwdriver](#) (1)



PARTS:

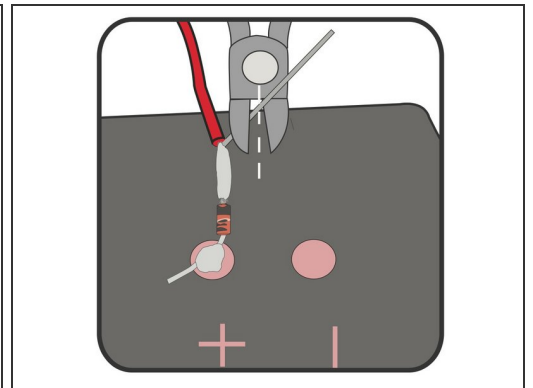
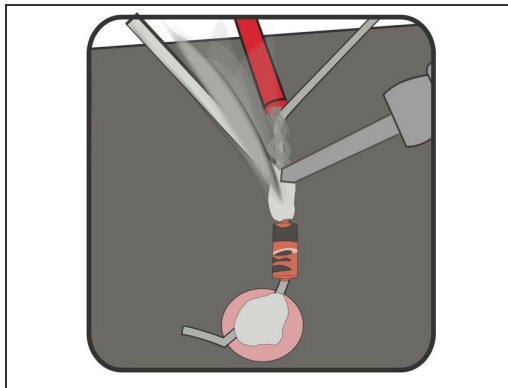
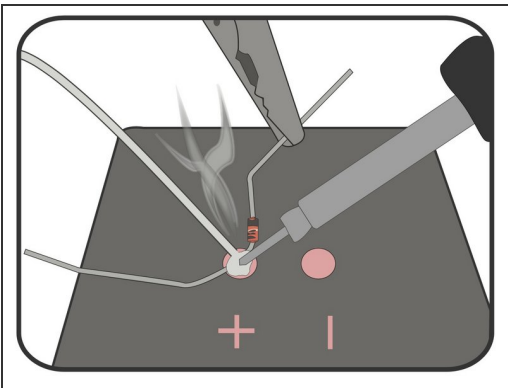
- [Solar USB 2.0 Kit](#) (1)

Step 1 — Strip Wires



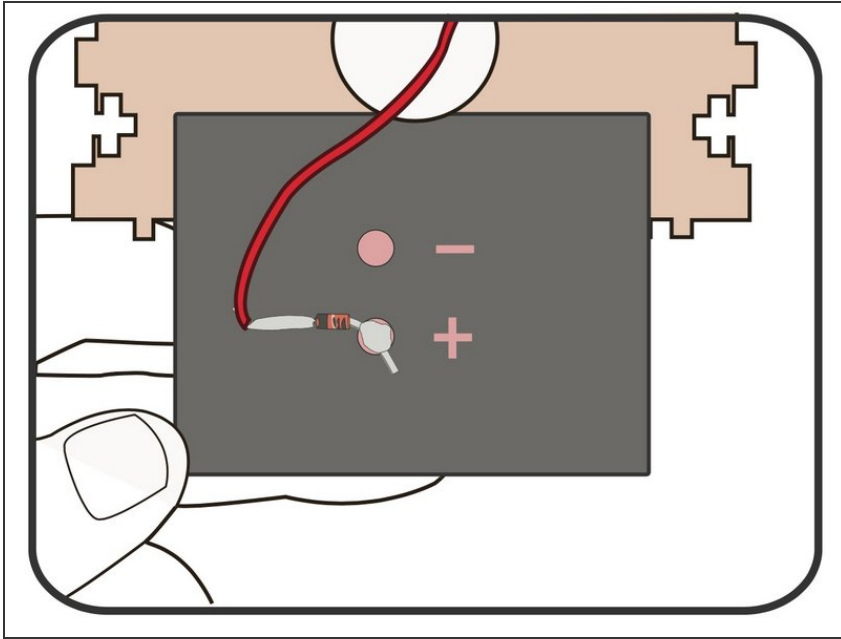
- Strip the ends of all wires. This includes the battery holder.

Step 2 — Solder The Diode



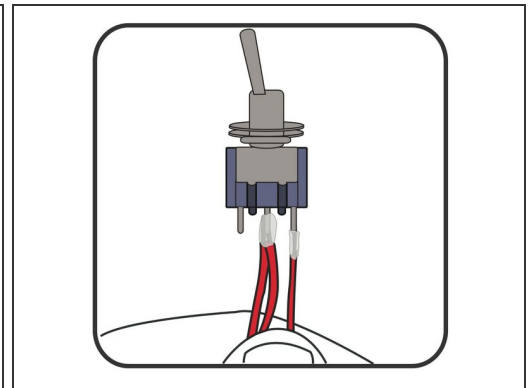
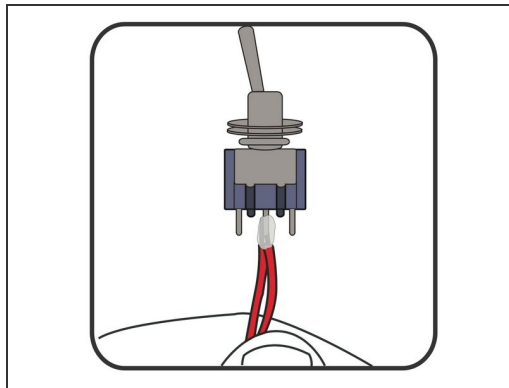
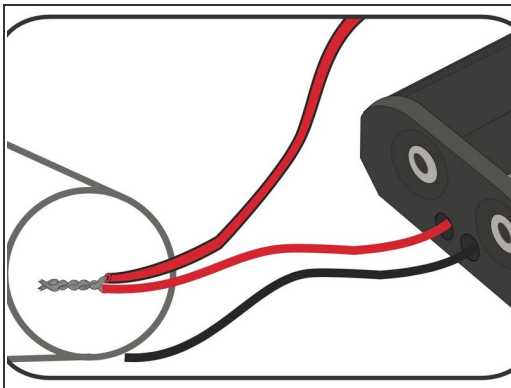
- Solder the diode to the + (Positive) solder point on the Solar Cell.
- Note: The Diode has a black bar on one side. That side goes to the wire, non black bar side to the Solar Cell.
- Twist one end of your red wire around the other side of the diode. Solder into place.
- Snip off excess parts of the Diode legs.

Step 3 — Thread Wire



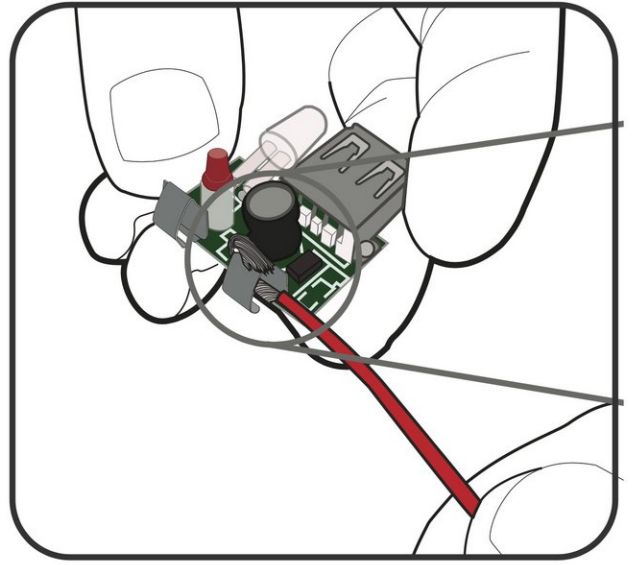
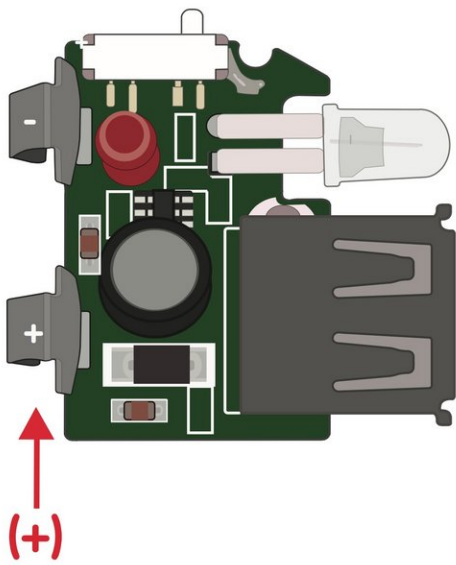
- Thread the wire through the "Top" laser cut wood part.

Step 4 — Solder The Switch



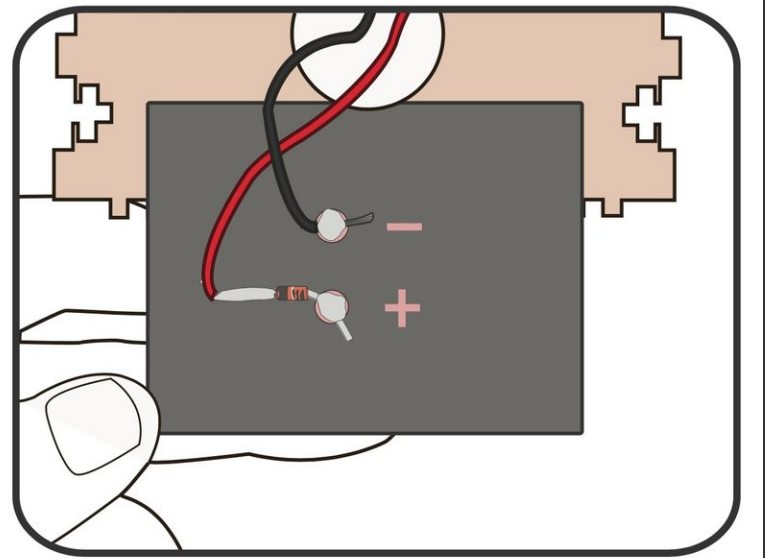
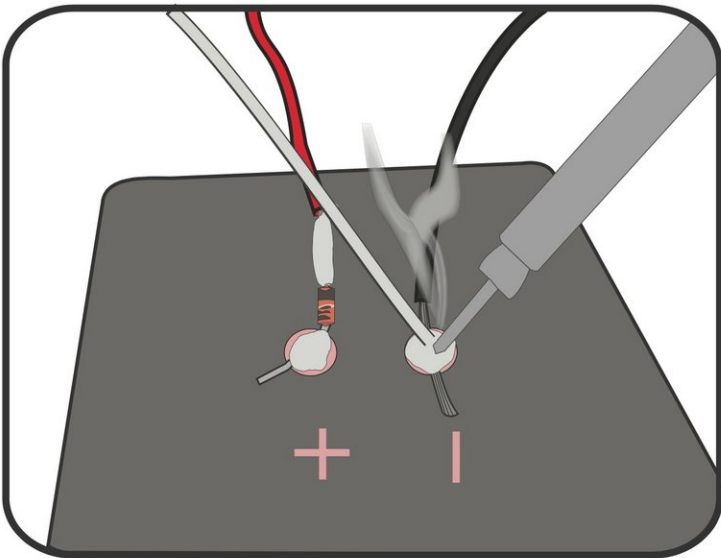
- Twist the Red wire from the solar cell together with the Red wire from the battery holder.
- Solder both wires to the middle pin on the switch.
- Solder your other piece of Red wire to either of the outside legs.

Step 5 — Solder the USB Circuit



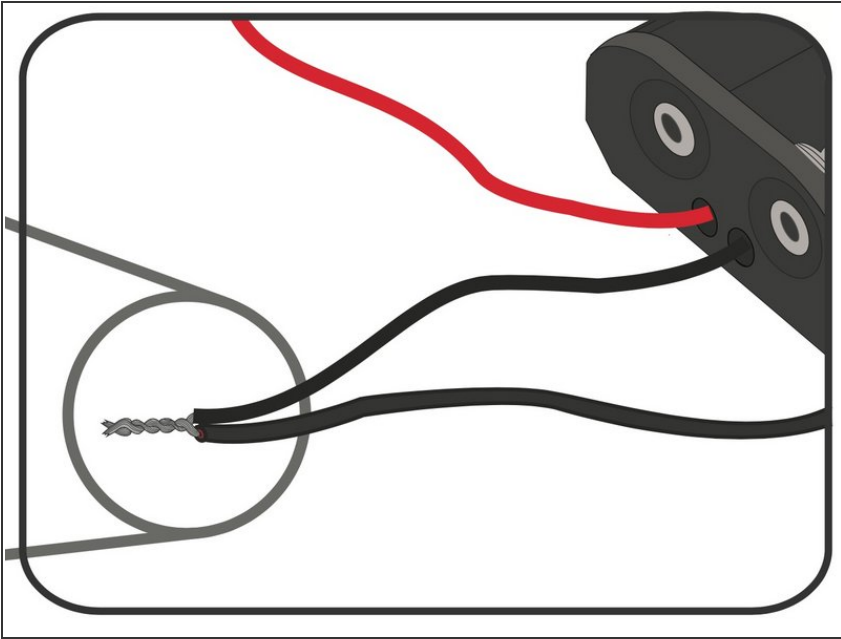
- Solder the Red wire coming off the switch to the Positive terminal on the USB Circuit.

Step 6 — Solder the Solar Cell



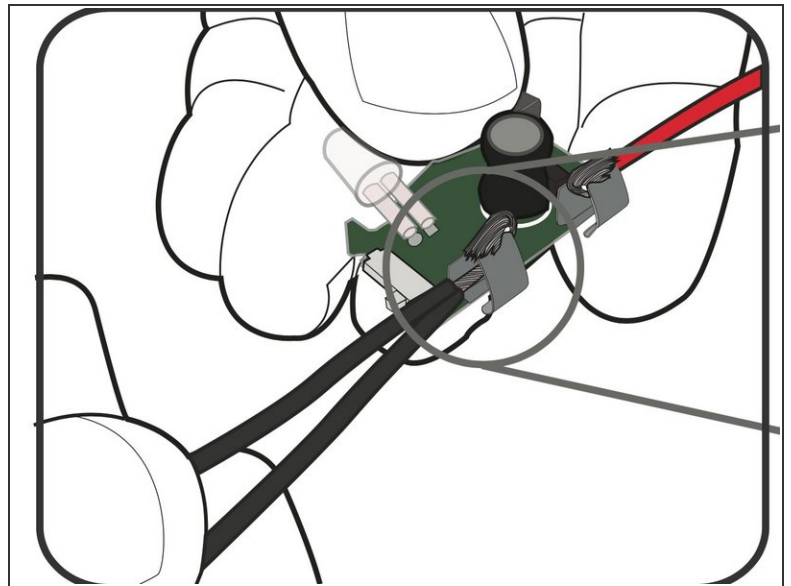
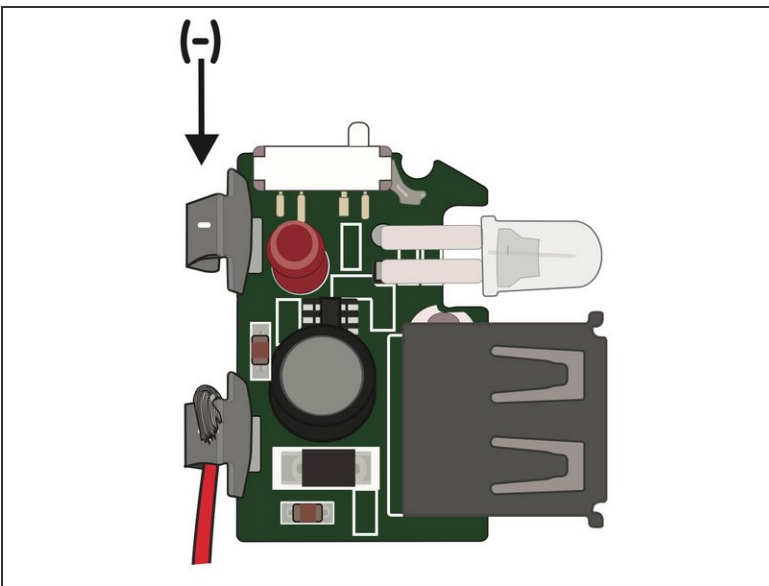
- Solder your Black wire to the Negative side of the solar cell.
- Thread it through the "Top" wooden piece.

Step 7 — Twist The Black Wires



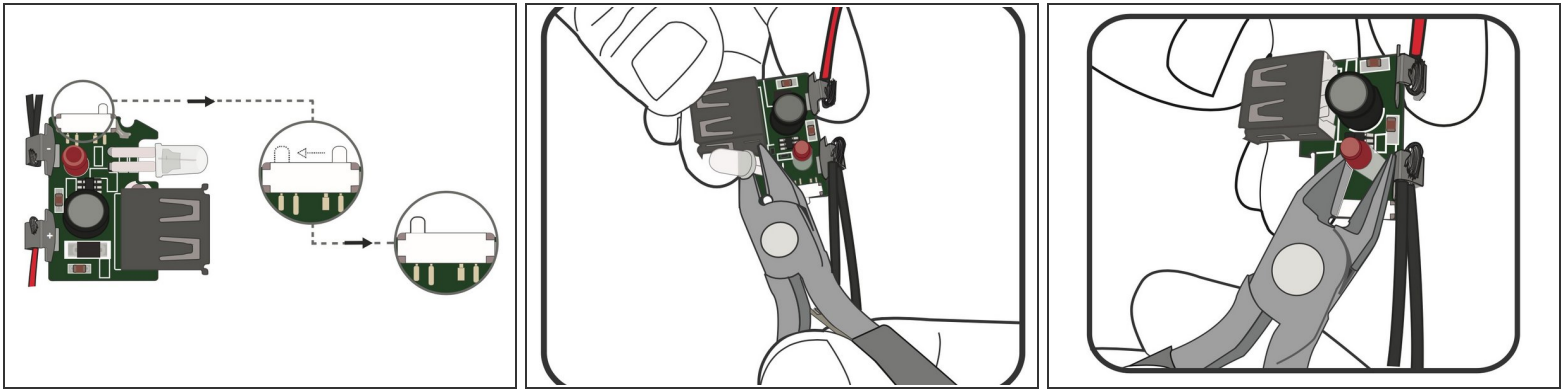
- Twist the Black wire from the Solar Cell together with the Black Wire from the Battery Holder.

Step 8 — Solder The USB Circuit



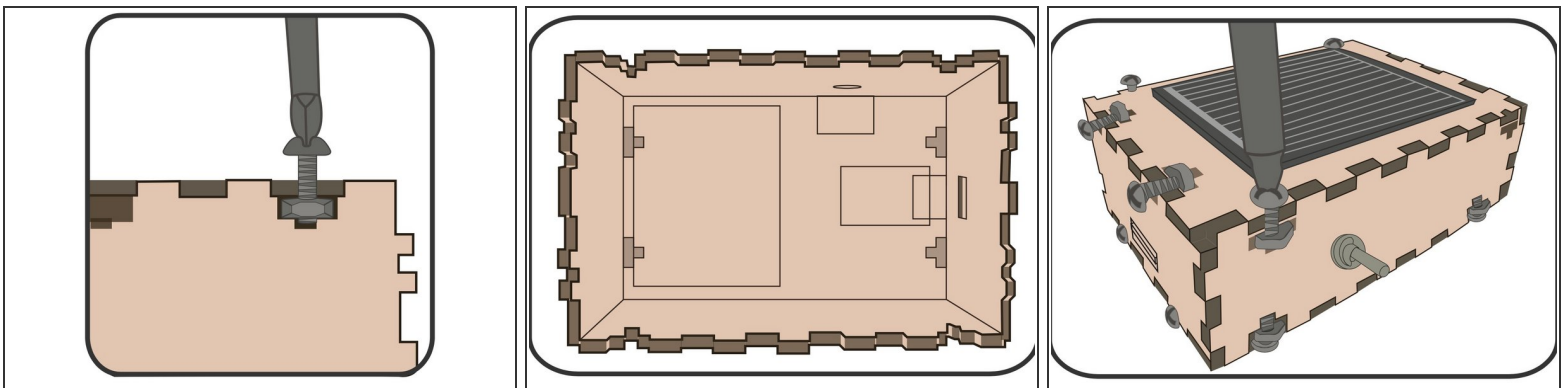
- Solder the two black wires to the Negative terminal on the USB Circuit.

Step 9 — Clean Up The USB Circuit



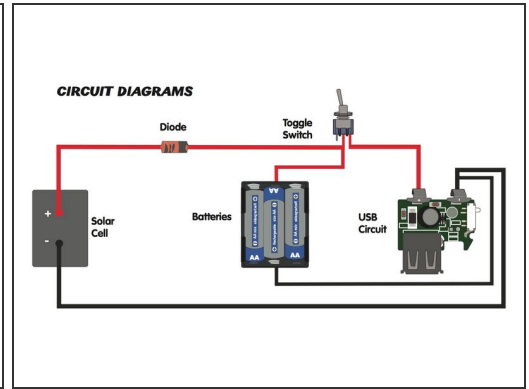
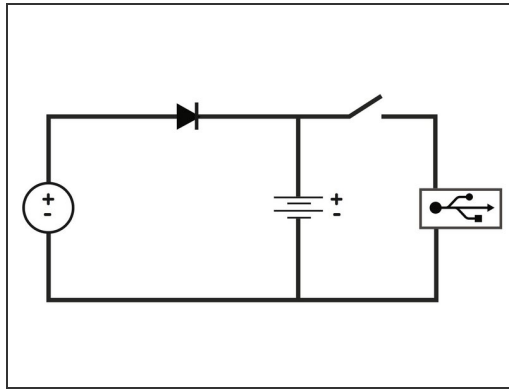
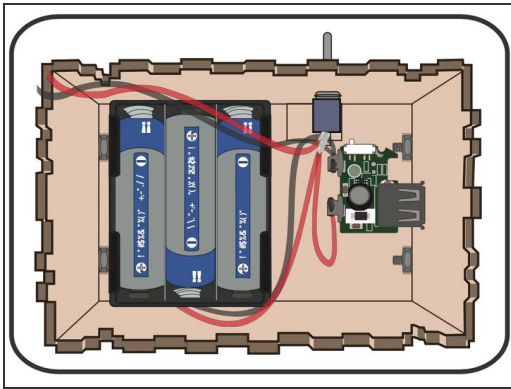
- Move the small white switch so that it is closest to the black wire.
- Snip off the White and Red LEDs. (They're useless in this project.)

Step 10 — Build The Body



- Using a screw driver, assemble the body.
- Use double sided tape to hold down the USB circuit and battery holder.
- Close up the box and secure the solar cell to the top using tape.

Step 11 — Trouble Shooting



- The batteries included in the kit may be dead. Use a wall charger to quickly charge them up.
- Or use some regular AAs for a quick test, though NEVER try and solar charge regular AA batteries.
- Check out the diagrams in this step if you're worried you missed something.
- The solar cell on this charger is weak and it may take a couple of days to charge up your internal batteries all the way.