



Solar USB 1.0

A guide on how to build the Solar USB 1.0 charger project.

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TOOLS:

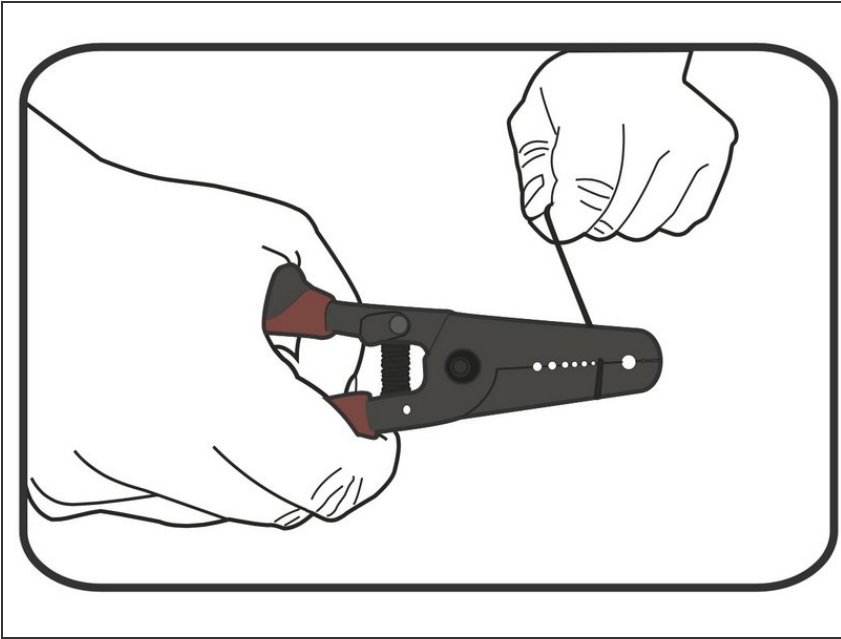
- [Soldering Iron](#) (1)
- [Wire Stripper](#) (1)
- [Hot Glue Gun](#) (1)



PARTS:

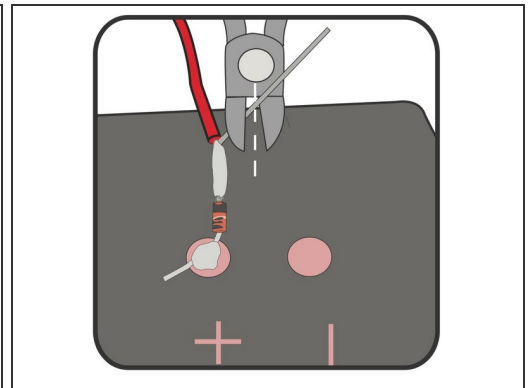
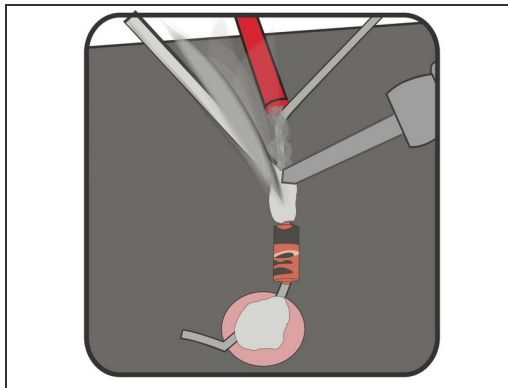
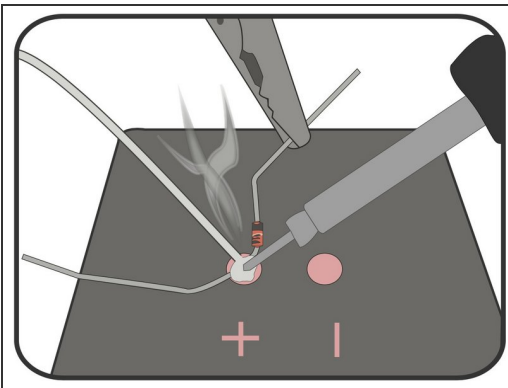
- [Solar USB 1.0 Kit](#) (1)

Step 1 — Strip The Wires



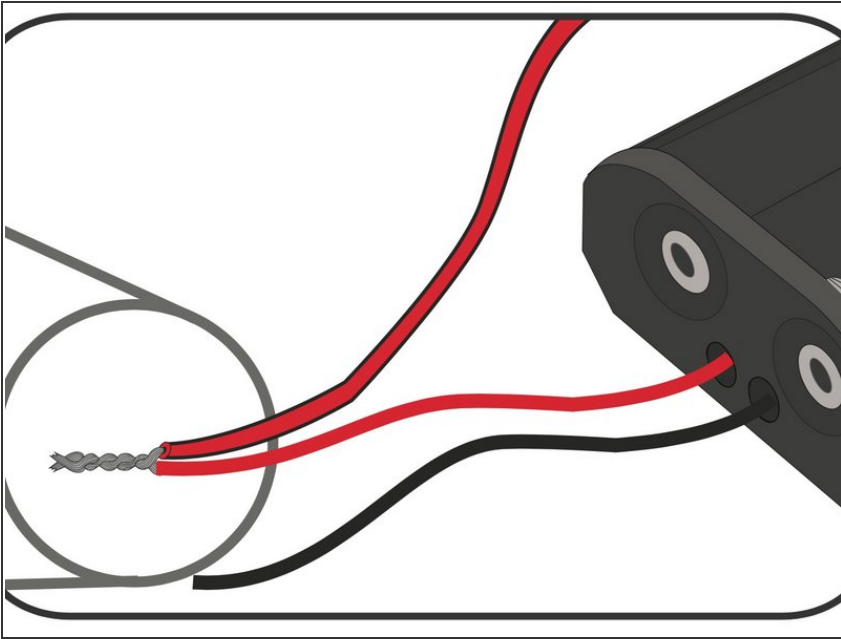
- Strip the ends of all wires, including the Battery Holder.

Step 2 — Solder The Diode



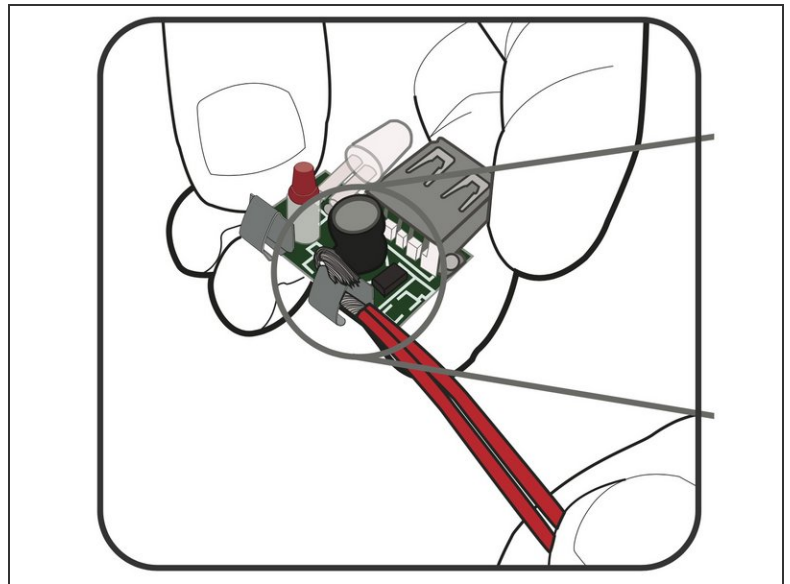
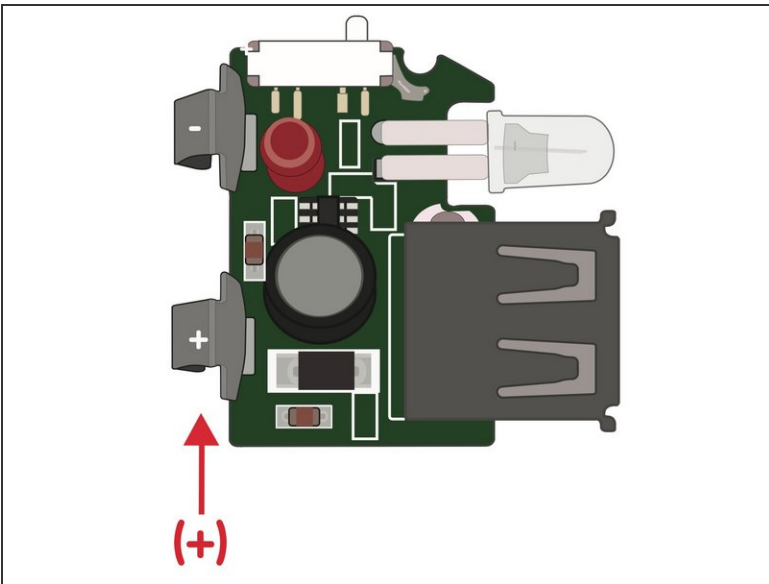
- Solder the Diode to the + (Positive) solder point on the solar cell.
- Note: The Diode has a black bar on it. That side is soldered to the Red wire, and the non black bar side is soldered to the solar cell.
- Solder the Red wire to the other side of the diode.
- Cut excess Diode leg lengths.

Step 3 — Twist The Red Wires



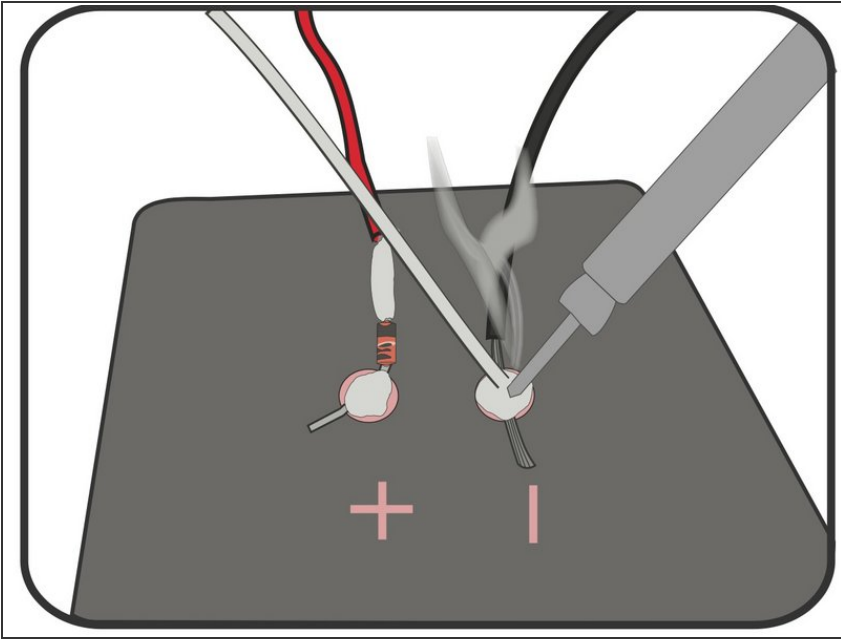
- Twist the Red Solar Cell wire together with the Red wire from the Battery holder.

Step 4 — Solder The USB Circuit



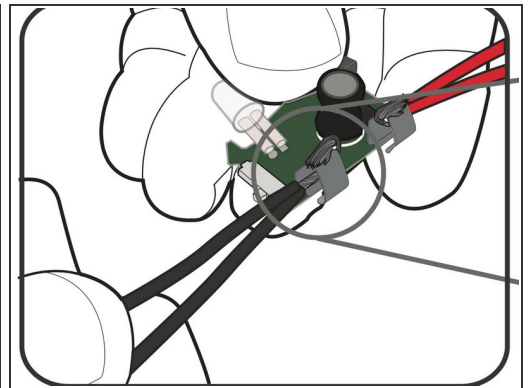
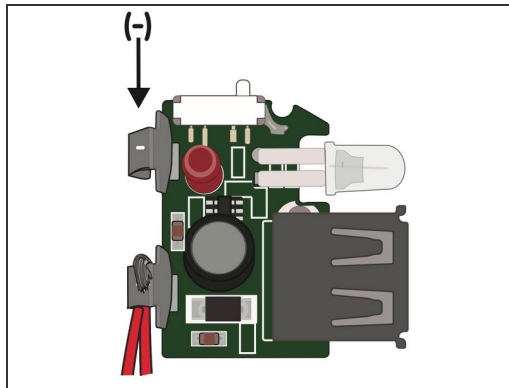
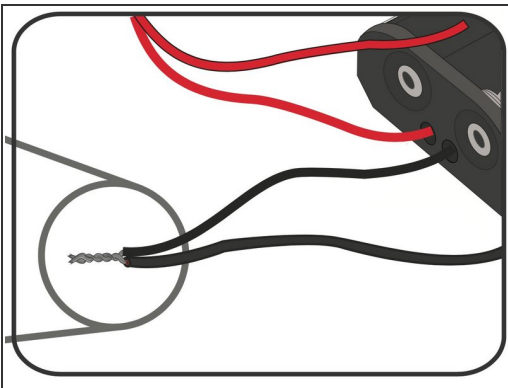
- Solder the Red wires to the Positive terminal on the USB Circuit.

Step 5 — Solder The Solar Cell



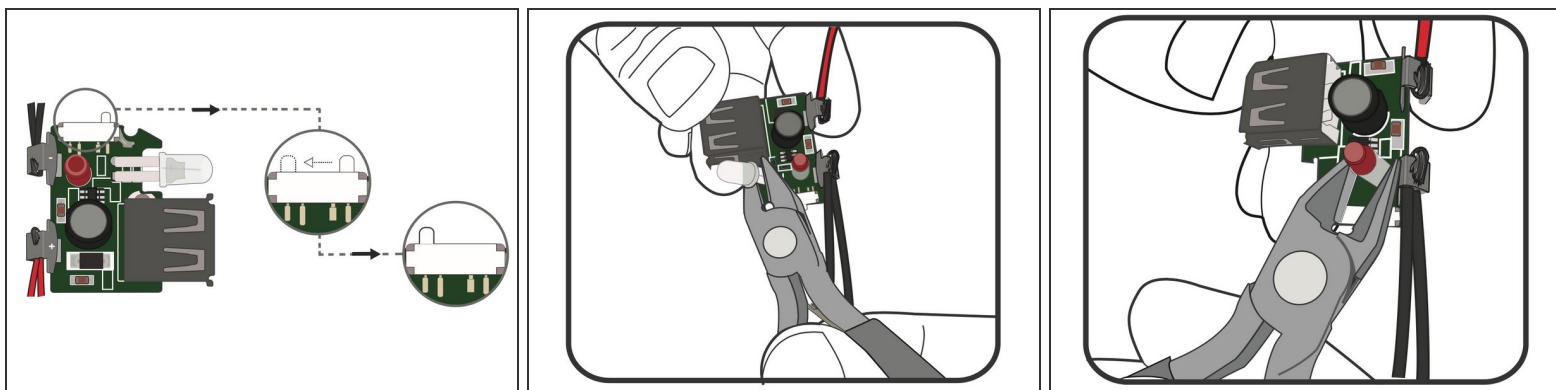
- Solder the loose Black wire to the Negative side of the Solar Cell.

Step 6 — Twist and Solder



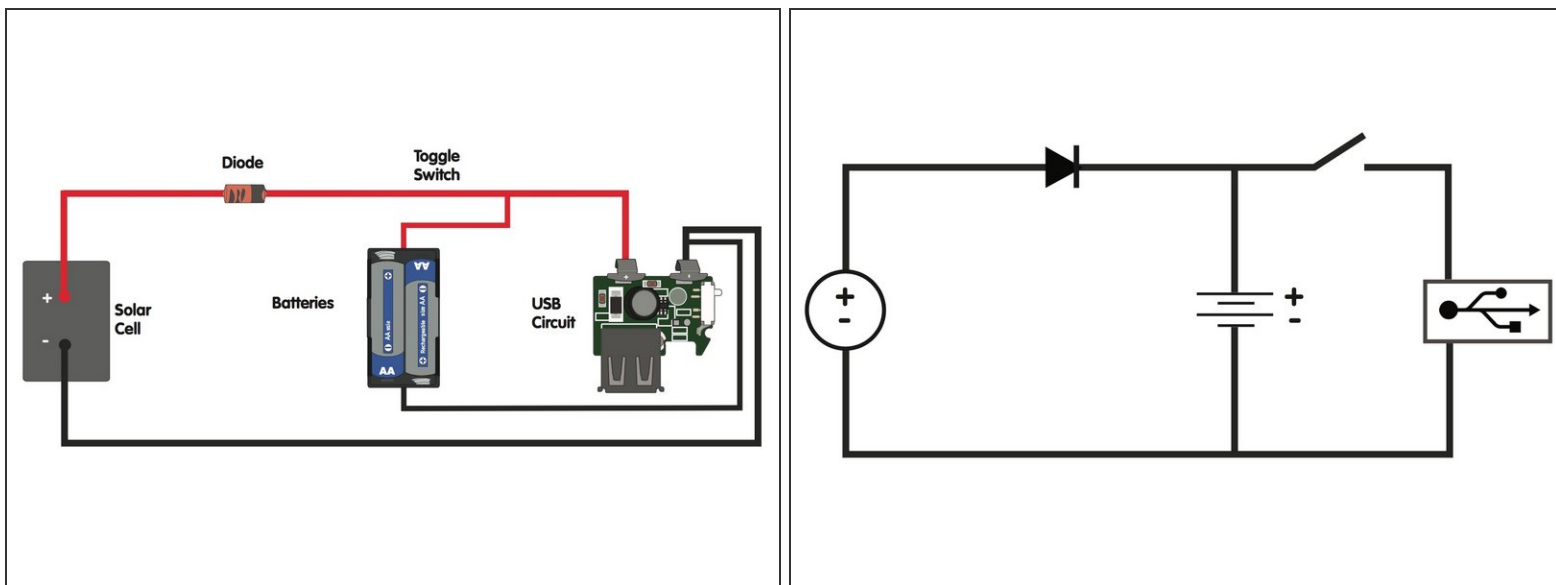
- Twist the Black Solar Cell wire together with the Black wire from the Battery Holder.
- Solder the Black wires to the Negative terminal on the USB Circuit.

Step 7 — Clean Up The USB Circuit



- Move the white switch back towards the Negative terminal. (That sets the USB circuit to the "on" position.)
- Clip the red and white LEDs off the USB Circuit. They're not used in this project.

Step 8 — Troubleshooting



- The rechargeable AAs may be dead, charge them up quickly with a wall AA charger.
- In a pinch, use regular AAs for a quick test. NEVER try and solar charge regular AAs.
- When in doubt, try a different USB device.

Step 9 — Enclosures



- While an Altoids tin works well, it is metal and conductive.
- Using a \$1 Store plastic food container or cheap wooden box is always a good solution.