Project: Solar Charger	Date: 26th November 2016
CC-BY-SA (digital) CERN OHL (hardware)	Open Hardware Guide

Steps:

1. Draw diagram of the charger for easy understanding (optional)
2. Open your ASKotec kit for tools
3. Get circuit board and fix the diodes in
4. Fix the resistors in the front of the diodes
5. Connect other to the LED lights to the negative side
6. Fix the capacitors with long side connected to the diode
7. Fix regulator with black side facing you and connect to the diode
8. Connect the other side to the capacitor (long side connected)
9. Connect all the negatives sides together
10. Cross the middle pin to the negative with side to diode
11. Behind the diode connect the positive wire from solar
12. And the other negative from the other end
13. Connect female USB. Positive on red and negative on black
14. Test the Solar Charger in the sun

Tools:

1. Indentical wire (red and black)
2. Soldering iron
3. Soldering grease
4. Sucker
5. Helping hand
6. Soldering wires

Materials

1. Solar panel 8V +/- 250mA
2. Resistor 1200 Ohm (1. Option)
   Resistor 600 Ohm (2. Option)
3. 1 Diode
4. Capacitor one 10mf
5. Capacitor two 100 mf
6. Female USB
7. 5V Regulator
8. Circuit board
9. LED light (red one)

Tips and Usage

1. Can be used for charging phones
2. Environment friendly
3. Saves money
4. Test with mobilephone or LED light

Open for improvements

- Build a casing

Open Questions:

- How to find + and – wires on female USB (if not red and black)?
- What if somebody is surrounded with no material, how to use old electronics?