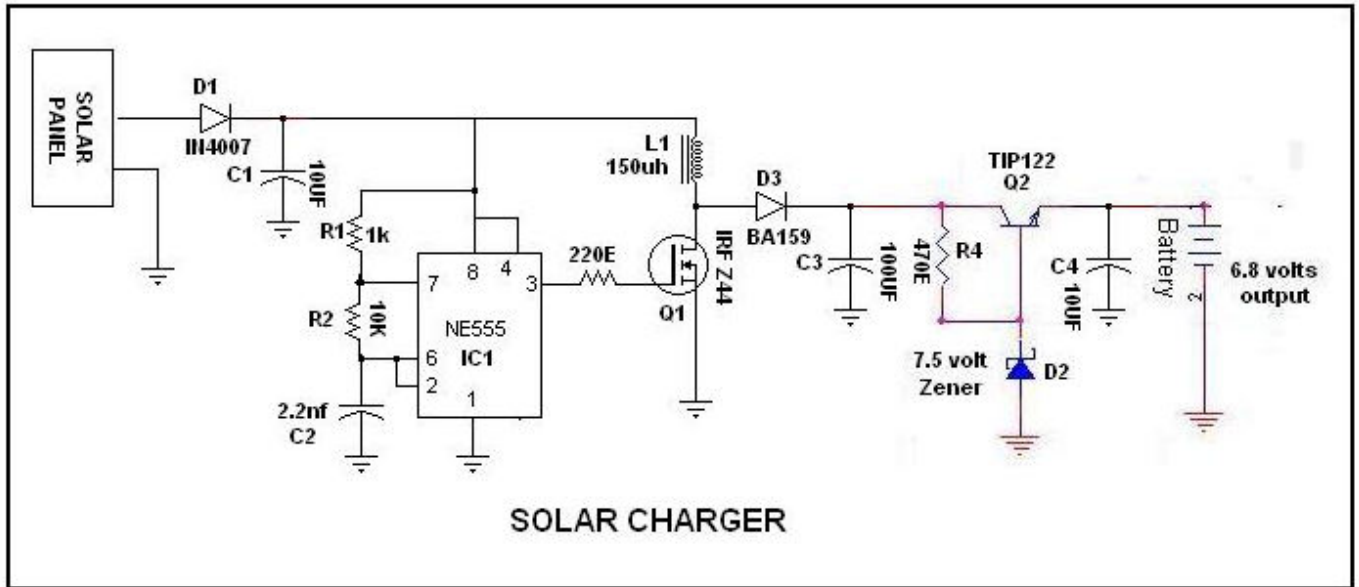


Solar Charger:



This solar charger circuit outputs a constant voltage even though the sunlight intensity is not constant. This is achieved by boosting up the solar panel voltage at least 2 times. This boosted voltage is then regulated by a voltage regulator circuit to output a constant DC output voltage. In this principle a boost converter circuit is designed with a high frequency square wave generator using 555, a mosfet with an inductive load and diode. This boost converter can boost up the solar voltage more than 3 times. A zener based transistor driver voltage regulator circuit outputs a constant voltage based on the zener voltage. IC-1 and Q1 with L1 and D3 and C3 form a boost converter deriving 15 volts for a 5 Volt solar panel which in turn is given to Q2 (Tip 122) for further voltage regulation. D2 is a 7.5 voltage zener-diode connected to the base of tip 122. This will output 6.8 volts at the emitter of Tip122. This 6.8 volts can be used for charging a cell phone battery.

