Mobile Cell Phone Charger

A mobile cell phone charger is a device that provides electrical energy into a cell battery by forcing current through it.

Alternative Current and Direct Current

Most mobile phone are usually used low level of DC current of 5V.

The power supply from wall outlet in north America are AC current which the current flow back and forth at a really fast rate. Most home use 120V AC current at 60 Hz

The Ac currents need to be converted to smaller DC to charge the phone’s battery.

So how exactly the process of converting AC current to DC current really works?

Electricians prefer to call voltage as pressure and currents as volume.

To charge a battery, phone’s charger take input from higher voltage, pressure which allows current, volume of electrons to flow from charge to the battery.

Inside the phone, the battery act as a container that keep the current flowed from the charger and reused it to power all the components of the phone.
When the charger is plugged in to wall outlet, the Ac current flows into the charger and contacts with the Transformer.

The Transformer is the component that takes the high level of AC current and gives out the smaller AC current.

The output AC current then run to a bridge called Rectification that form by four Diodes.

The job of these Diodes can be consider as a water valve which only allow current flow through them in one direction.

The current output from Rectification is the DC current.

To eliminate and regulate DC current from Rectification process for usable with battery phone, the **resistor** is added right after the bridge.

After run through all these components, there is a nice, smooth and compatible DC current that can charge any mobile phone.

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**Summary**

Wireless mobile phone charger is a useful device that takes input of AC current with high voltage and run through a conversion process to give out a usable output to charge phone’s battery. The conversion can be understood easily once all the components be explained and understood. By follow this description, you can try to build your own charger with a many cheap variable component that available in stores.