

Solar based Battery charger

The project aims at designing a solar based mobile battery charger system which charges a mobile phone directly through the solar energy.

Power plays a great role wherever man lives and works. The living standard and prosperity of a nation vary directly with the increase in the use of power. The electricity requirement of the world is increasing at an alarming rate due to industrial growth, increased and extensive use of electrical gadgets. According to world energy report, we get around 80% of our energy from conventional fossil fuels like oil (36%), natural gas (21%) and coal (23%). It is well known that the time is not so far when all these sources will be completely exhausted. So, alternative sources should be used to avoid energy crisis in the nearby future. The best alternative source is solar energy.

With the existing push in the direction of sustainable, clean sources of power, it is no surprise that solar power has become one of the most popular alternative energy sources. Free and available everywhere, the power of the sun can be employed to power everything like cell phones and MP3 player. The sun's energy is usually harvested through solar panels that are made up of photovoltaic cells. These cells can convert the sun's power into electricity that can be used for a number of purposes. For private use, a handheld solar hybrid charger can be employed to recharge little device for instance a MP3 player, a cell phone, or a camera.

The project makes use of a solar plate. The voltage from the solar plate is made suitable for mobile charging through a regulated power supply block and fed to a mobile phone. The block diagram is shown below:

Block Diagram:

Solar cell based mobile phone battery charger

