Solar Based Battery Charging and Inverting System.

About This Project:

In the past, solar power was usually used for large-scale grid connected system and small remote photovoltaic plants or stand-alone systems The portable solar panels make solar power readily available for mobile power needs such as outdoor enthusiast, expeditions and campers. It also provides portable solar power for the military to extend the run time of military devices including satellite communications

In this project sunlight is the main source of electricity. Solar can give charge in battery . Battery will connect with inverter to drive a load . The main heart of this project is the Arduino microcontroller . Then arduino sends a solar voltage and battery signal voltage measure the voltage of current and feedback it to arduino . The voltage reading will show in LCD Display.

Block Diagram:

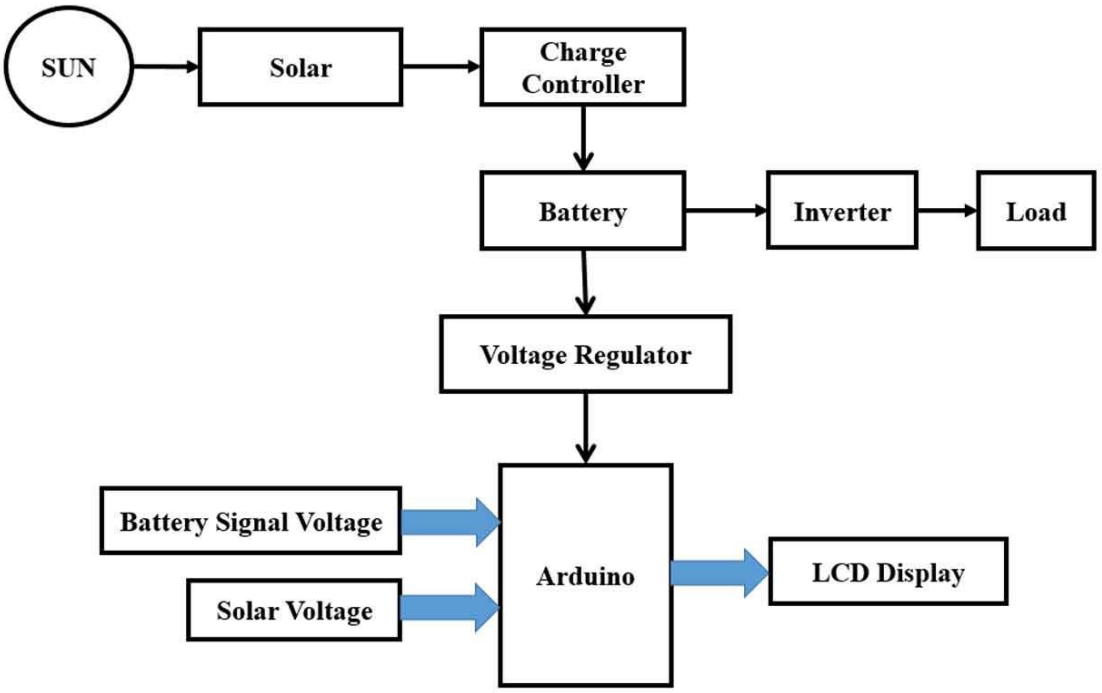

Figure: Block Diagram of Solar Based Battery Charging and Inverting System.

Required Instrument:

- Solar Panel.
- Charge Controller.
- 12V DC Battery.
- Inverter.
- Arduino Nano.
- LCD Display.

Advantages:

There are certainly many advantages of our project and some of the major ones have been given below:

- The project is compact, cheap and user friendly
- The whole system consumes very little energy
- Our system is fully automatic.
- The system can be implemented anywhere with very little effort.
- Requires low maintenance

Applications:

Some of the application areas of the project has been pointed out below:

- The system can be implemented in industrial.
- It can be implemented in village area
- It can be also used for irrigation purpose in village.
- It also can use in hospital & school.

N.B: *Any modification of this project can be done as per your requirement. We will make the project according to your needs. Contact us with your any innovative engineering projects idea. We will help you to implement your project.*