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Sine wave inverter

The project aims at designing an economical and robust inverter for remote area power supply (RAPS). The system designed is capable of producing a sine wave AC.

Inverters have become an important device in our daily lives. Especially in summer, there is abundant power shortage. It is really difficult for a common man to be able to survive in such conditions. Therefore, this device is used to get that power back and also it is very affordable and efficient too.

The project makes use of a 12v DC battery. The 12V DC is fed to MOSFET driver fed to a center tapped transformer which is capable of step up the 12VAC to 230V AC, which is suitable for driving electrical loads. The control unit interfaced to MOSFET driver makes the supply to sine wave AC.

The main objectives of the project are:

- 1. Designing of an inverter.
- 2. Generating sine wave AC.

The project provides exposure to following technologies:

- 1. MOSFET driver designing.
- 2. Control unit designing.

The major building blocks of the project are:

- 1. 12V DC Battery.
- 2. MOSFET driver.

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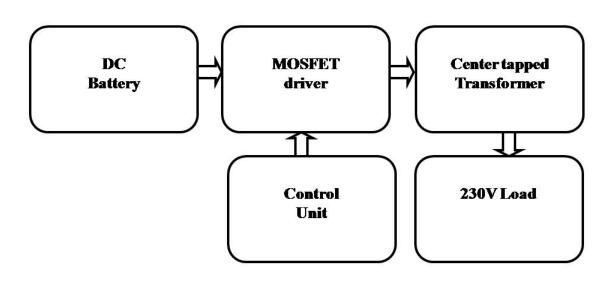
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- 3. control circuit.
- 4. Center tapped transformer.
- 5. Electrical load.

Block diagram:

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