

CANDLE POWER BANK

Project Presentation

By Abin George K G Anand P S Anirudh
Albart Saju Ananthu Vijayan Sradha Biju



Introduction

As we know, during flood one of the most challenging problem is communication. Generally we are using mobile phones to communicate with each other . But due to heavy rain the continuity of electricity may interrupt frequently ad thus charging of mobile phones is the new emerging problem

Existing Infrastructure

Present technique for charging mobile phone during flood

- ✓ Power banks
- ✓ Portable charging units



Problems with present System

- It may charge the phones only 3 to 4 times and is dead
- In the case of temporary charging modules may charge the device just 30% to 50% and remaining batteries is a huge threat to environment

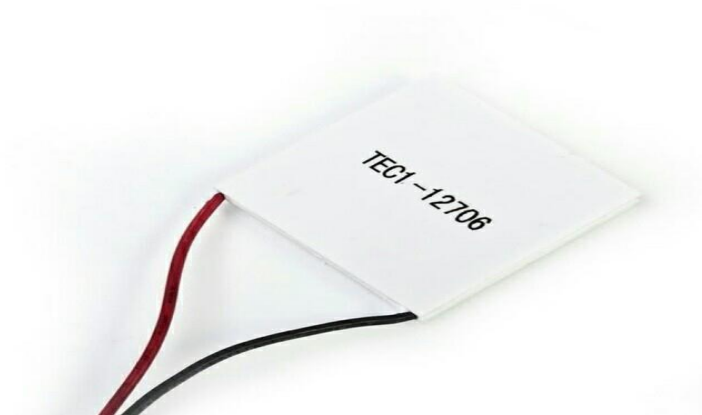
Proposed Idea



As an eco-friendly device, we are introducing Candle Power bank as a relief equipment as well as a regular use equipments for domestic uses. This device can charge any USB powered devices with just a candle

PELTIER

- ❑ A Peltier cooler, heater, or thermoelectric heat pump is a solid-state active heat pump which transfers heat from one side of the device to the other, with consumption of electrical energy, depending on the direction of the current.
- ❑ But in our project reverse action is taking place



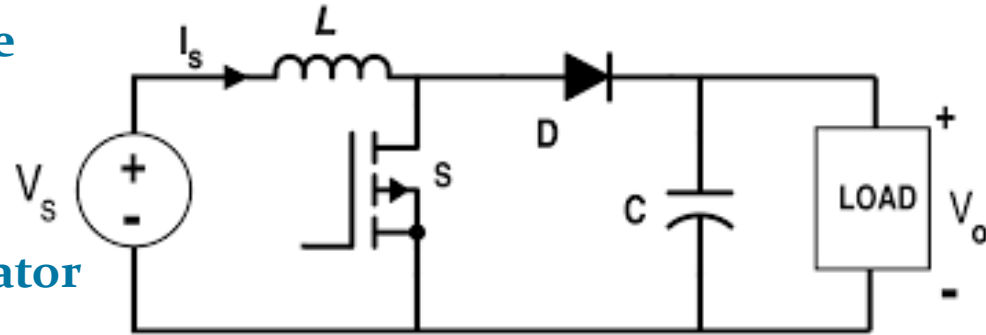
COOLING SYSTEM

- ❖ Water cooling is the cooling method done here.
- ❖ Water is circulated through the water blocks which are inserted above peltier module.

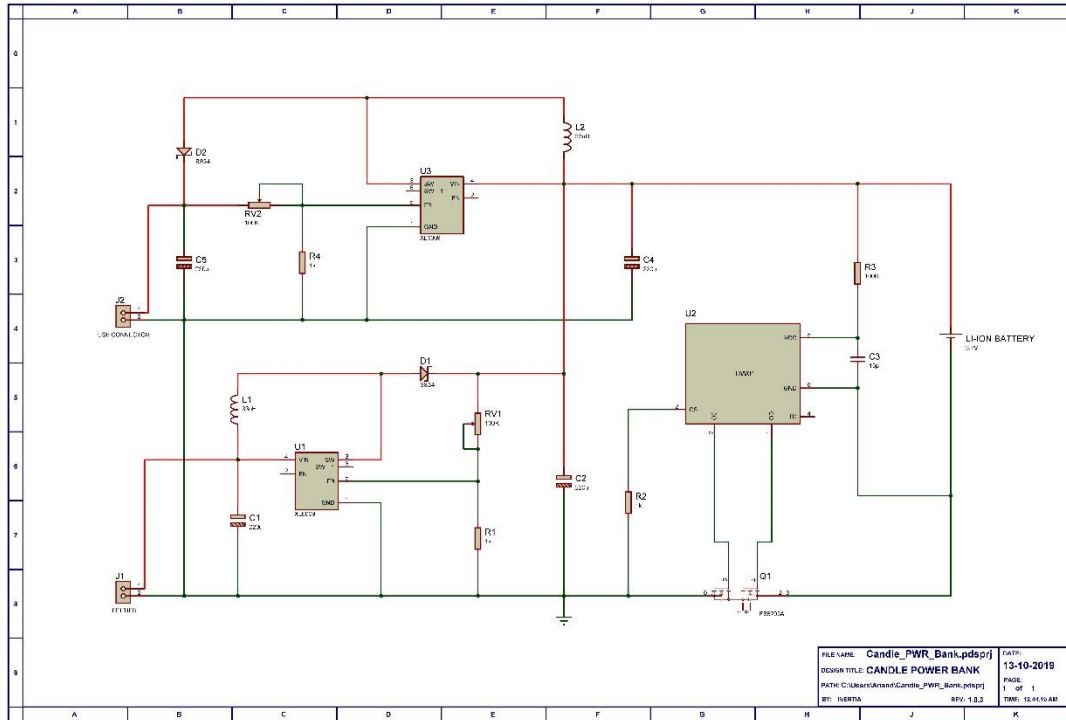


BOOST CONVERTOR

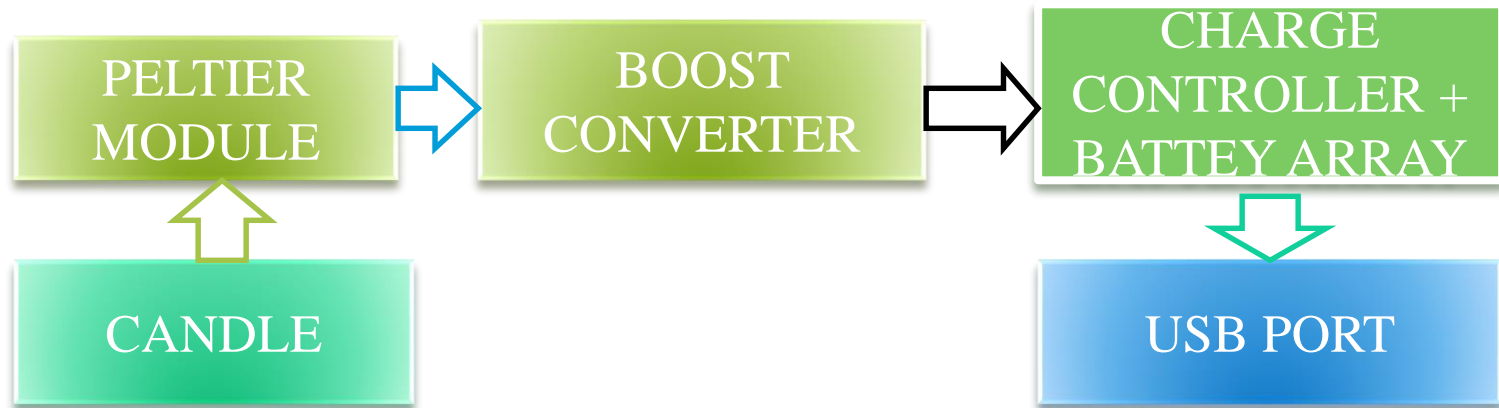
- A boost converter is a DC-to-DC power converter that steps up voltage (while stepping down current)
- Essentials about the circuit and operation of a step up or boost regulator using switch mode power supply techniques used in many DC-DC converters.



Actual Circuit Diagram



Basic Working Principle



ADVANTAGE

- This device is purely eco-friendly
- It can be used as a mini room heater,if electric power is supplied into it
- Produce electric power with just a candle
- Almost no maintainence
- Long life
- Compatible with any USB devices
- No charging required

CONCLUSION

For the need of everyone who is trapped due to flood or by anything can use this product to overcome some difficulties and may help them to escape from it.

This is not just as a product it is a saver for many.



If There is a Spark,

There will be a Doubt...

Thank You