

RFID based Mobile Charging System

<https://www.youtube.com/watch?v=DxAcTISNb0Y>

The main aim of the project is to design a RFID based mobile charging system charges the mobile for particular amount of time on scanning RFID.

Now a day's mobile is playing very important role in our day to day life. But it needs to be charged. So the idea of smart power system RFID based mobile charger helps us in the emergency posture by the way of charging our mobile. Due to continuous work load we face low battery problems and at time emergency we cannot find any solution. To deal with this we found solution for mobile charging by suddenly plugging charger of mobile after scanning RFID. This system uses RFID cards to detect the particular user and allows him to use the power for some specific intervals of time. In this way every user is only allowed a certain specific duration to use the power port and hence no user can monopolize over the power port. It will take less time to charge compare to other charger.

In this microcontroller used to read the information from the RFID reader and display it on LCD display.

Relays are switches that open and close circuits electromechanically or electronically. In this relay will be ON when the RFID reader reads the RFID card. It will be on for particular time. If in between RFID reader reads the card again the relay will OFF.

This system is used by shop owners, public places like railway station, bus stop to provide mobile charging facility.

Main Objectives of the Project:

- It's simple and quick mobile charger.
- Its prepaid mobile charger.
- Charging at emergency situation.

The main blocks of this project are:

- Adapter power supply.
- RFID reader and tags.
- PIC Micro controller
- Relay with mobile charger.
- LCD display.
- Reset button
- Crystal oscillator
- LED indicator.

Software's Used:

1. PIC-C compiler for Embedded C programming.
2. PIC kit 2 programmer for dumping code into Micro controller.
3. Express SCH for Circuit design.

Block Diagram of The Project:

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