

Automatic Metro Station Entry Gate Card Scanner and Billing System.

About This Project:

This project based on automated system for billing in the Metro Train System which is based on unique passenger identification. This is a user friendly system, which will automatically identify the passenger and deduct the passenger's fare according to the distance travelled. The Radio Frequency Identification (RFID) card and rfid reader are used to make the identification of passenger and transaction very precise. System thus reduces human errors and efforts. This project is a complete metro train simulator that will be installed in a metro train. The RF Card technology is used that is it has a unique id for every tag. Every person is allotted a RF card with the fixed balance in it. The metro train will keep on passing between the stations and as it stops at the station the person has to swipe its RF card to make an exit. According to distance travelled by the passenger the ticket is deducted from its balance, as the person has to show the RF card while entering and leaving the train station. The MCU is used to perform the above task along with the display unit and RFID reader.

Block Diagram:

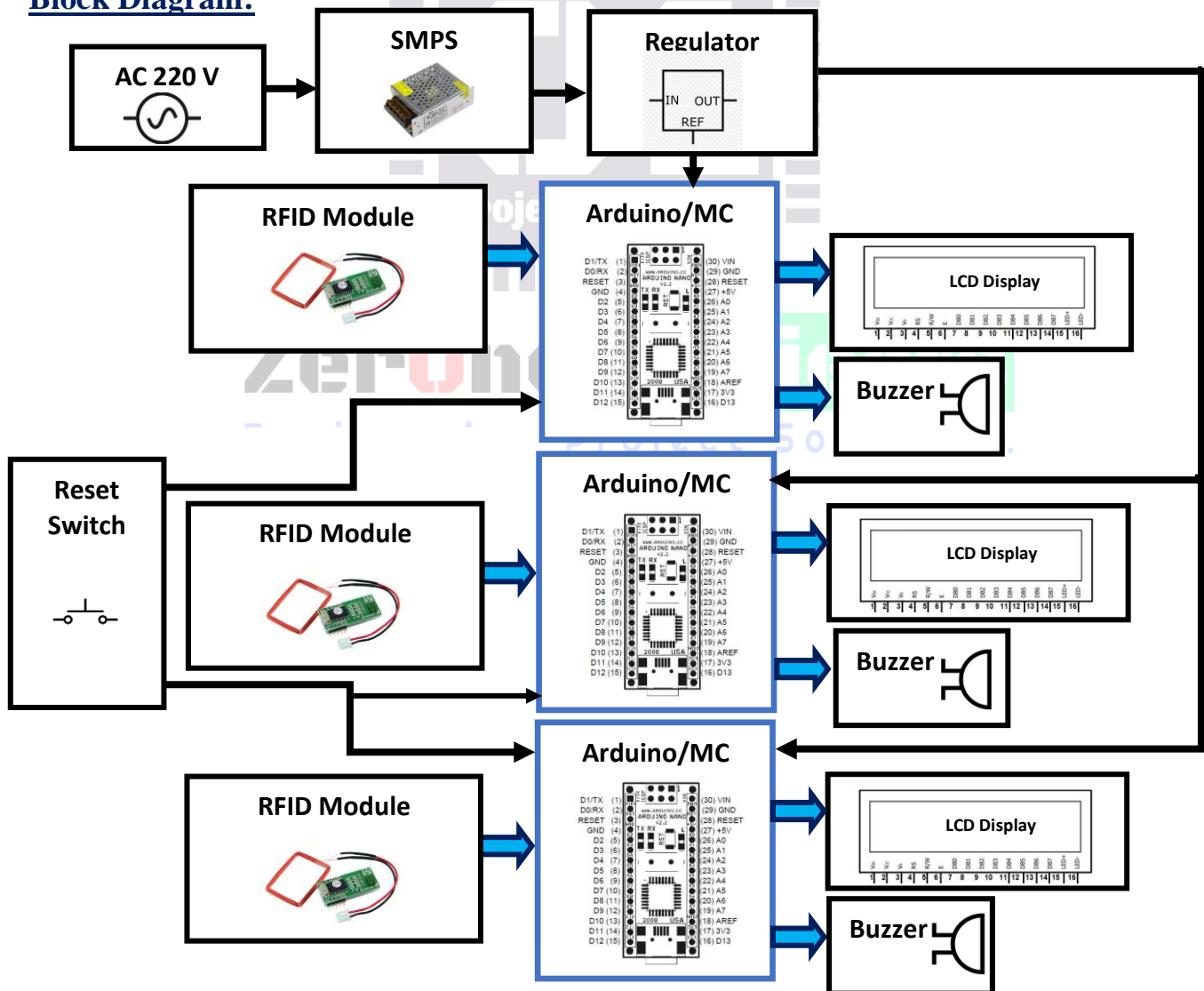


Figure: Block Diagram of Automatic Metro Station Entry Gate Card Scanner and Billing System.

Required Instrument:

- Arduino.
- RFID Module.
- SMPS.
- LCD Display.
- Buzzer.
- Voltage Regulator.
- Switch

Advantages:

- Transparent and convenient mode of billing/ ticketing.
- RFID cards are more reliable as compared to paper ticketing system.
- RFID tags are reusable.
- The RFID card can be used at any temperatures and any climatic conditions without affecting its performance.
- The RFID system facilitates smooth functioning of metro train system by avoiding quarrelling and corruption.
- The RFID system provides fare calculation for the distance travelled thereby avoiding any confusion.
- Besides fare deduction it provides a precise account of passenger's identification which are travelling by metro train.

Applications:

- This System Can Be Widely Used Any Ticketing System.

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.

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