
GSM AND RFID BASED INTELLIGENT COURIER MAILBOX SYSTEM WITH AUTOMATIC DELIVERY NOTIFICATION

ABSTRACT

This project is aimed to build a system which can notify the arrival of courier or a postal mail to a particular person by using RFID and GSM technology.

Radio Frequency Identification (RFID) Card Readers provide a low-cost solution to read passive RFID transponder tags up to 2 inches away. The RFID Card Readers can be used in a wide variety of hobbyist and commercial applications, including access control, automatic identification, robotics navigation, inventory tracking, payment systems, and car immobilization. The RFID card reader reads the RFID tag in range and outputs unique identification code of the tag at baud rate of 9600. The data from RFID reader can be interfaced to be read by microcontroller or PC.

This GSM Modem can accept any GSM network operator SIM card and act just like a mobile phone with its own unique phone number. Advantage of using this modem will be that you can use its RS232 port to communicate and develop embedded applications. Applications like SMS Control, data transfer, remote control and logging can be developed easily. The modem can either be connected to PC serial port directly or to any microcontroller.

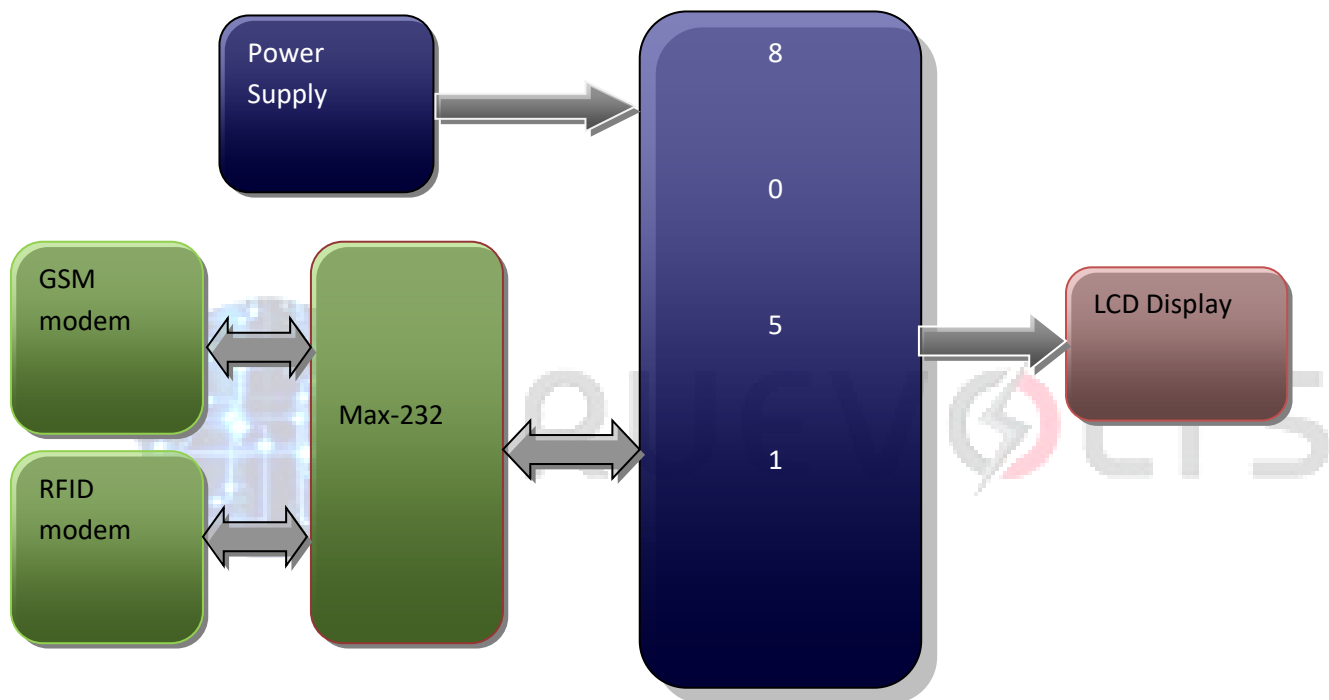
This project is built on 8051 micro controller which is interfaced with RFID and GSM module. In this system each courier or post will be assigned a unique RFID card, whenever a courier/post arrives the mail box, then the RFID reader present in the mail box will read the RFID card and the information in the card like the address and to from details. The same information is sent through a GSM modem to the authorized person to whom the post box belongs. Thus he can take necessary action depending on the urgency of the arrived courier or post. This is a smart way which reduces the mundane task of repeatedly checking for the incoming posts. An LCD is also interfaced in the project which displays the status of the system.

This project uses regulated 5V, 500mA power supply. . Unregulated 12V DC is used for relay. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac output of secondary of 230/12V step down transformer.

APPLICATIONS:

- Tracking systems
- Security systems

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:

