
LIBRARY MANAGEMENT SYSTEM USING RFID

ABSTRACT

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 read 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.

The RFID reader will be interfaced with the microcontroller through serial interface. In this project, the RFID reader will be present at the librarian to maintain the books taken by the students of that particular college or any educational institute. Other end of microcontroller connected PC through serial port. PC having C# .net application. Each book will be attached with a RFID tag. These RFID tags will contain the information like name of the student, year of joining, branch of specialization etc. These data stored in application data base. Whenever a student wishes to take a particular book from the library, the librarian places the tag present in the book near the reader so that the reader reads the information of the book and stores in the database. Then librarian has to enter student information in application.

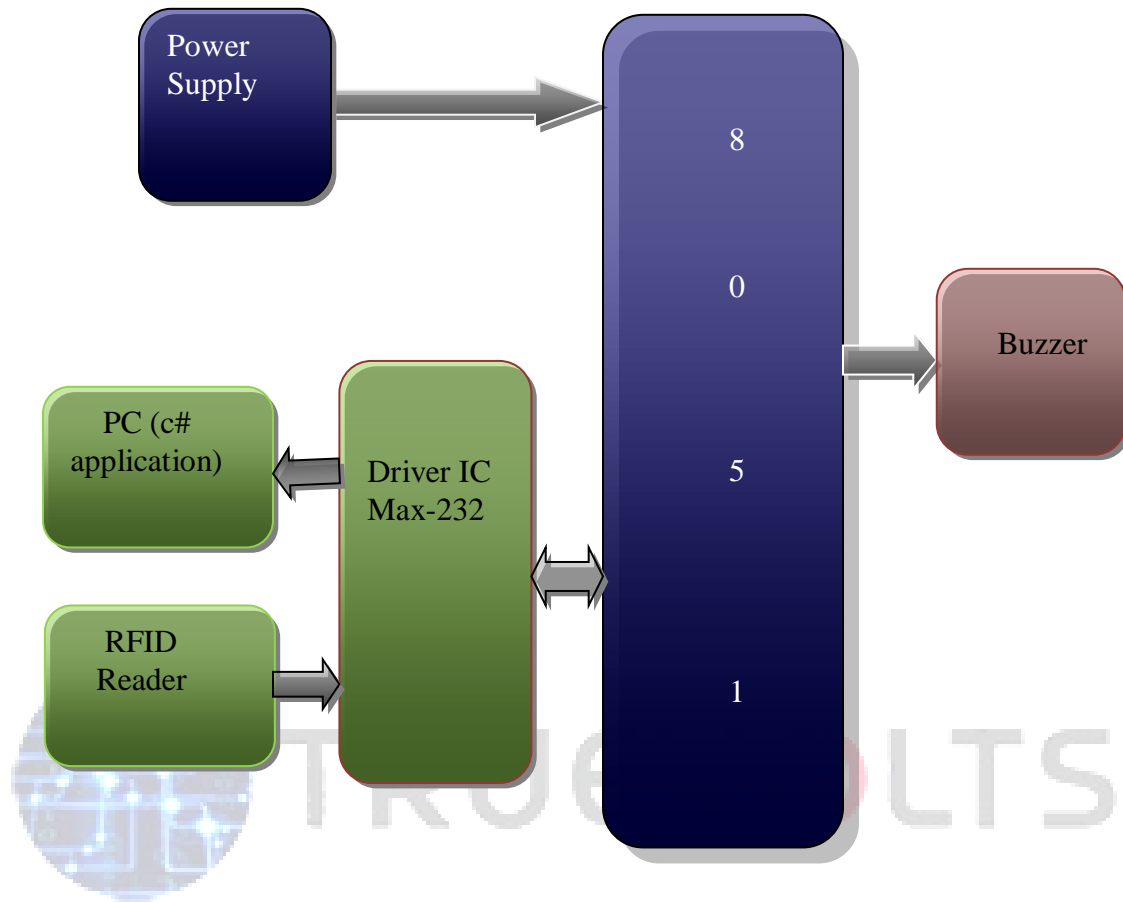
After return the book librarian has to press delete button. Then data will be deleted from data base. For small and medium systems notepad or word files are acting as data base. Microcontroller gives Beep sound if unauthorized cards occur.

In this project 7805 is a regulator and it avoids noise spikes in power supply. RFID modem is connected microcontroller through serial port. These RFID modem works under 9600 or 4800 baud rates.

APPLICATIONS:

- College Library management system
- Public libraries

BLOCK DIAGRAM:



POWER SUPPLY BLOCK DIAGRAM:

