VEHICLE PARKING SYSTEM USING SMART CARD

ABSTRACT

In general, a smart card is an integrated circuit card with memory capable of making decisions. A smart card, chip card or integrated circuit card (ICC), is defined as any pocket-sized card with embedded integrated circuits which can process information. In this project, we are using a contact smart card where the information inside the card is communicated with the card reader by inserting card into the card reader. The card reader in this project used is an SR-90 SDK of 1KB memory size.

In present days, in our global evolution people like businessmen, employees no one will there without having a car. Mainly in cities, many of the cars are being used by the people for offices, shopping's and for many more. But the main problem here is where to park these vehicles, because the parking place of the cars may be so congested, in some places as the numbers of cars are more than the place of parking.

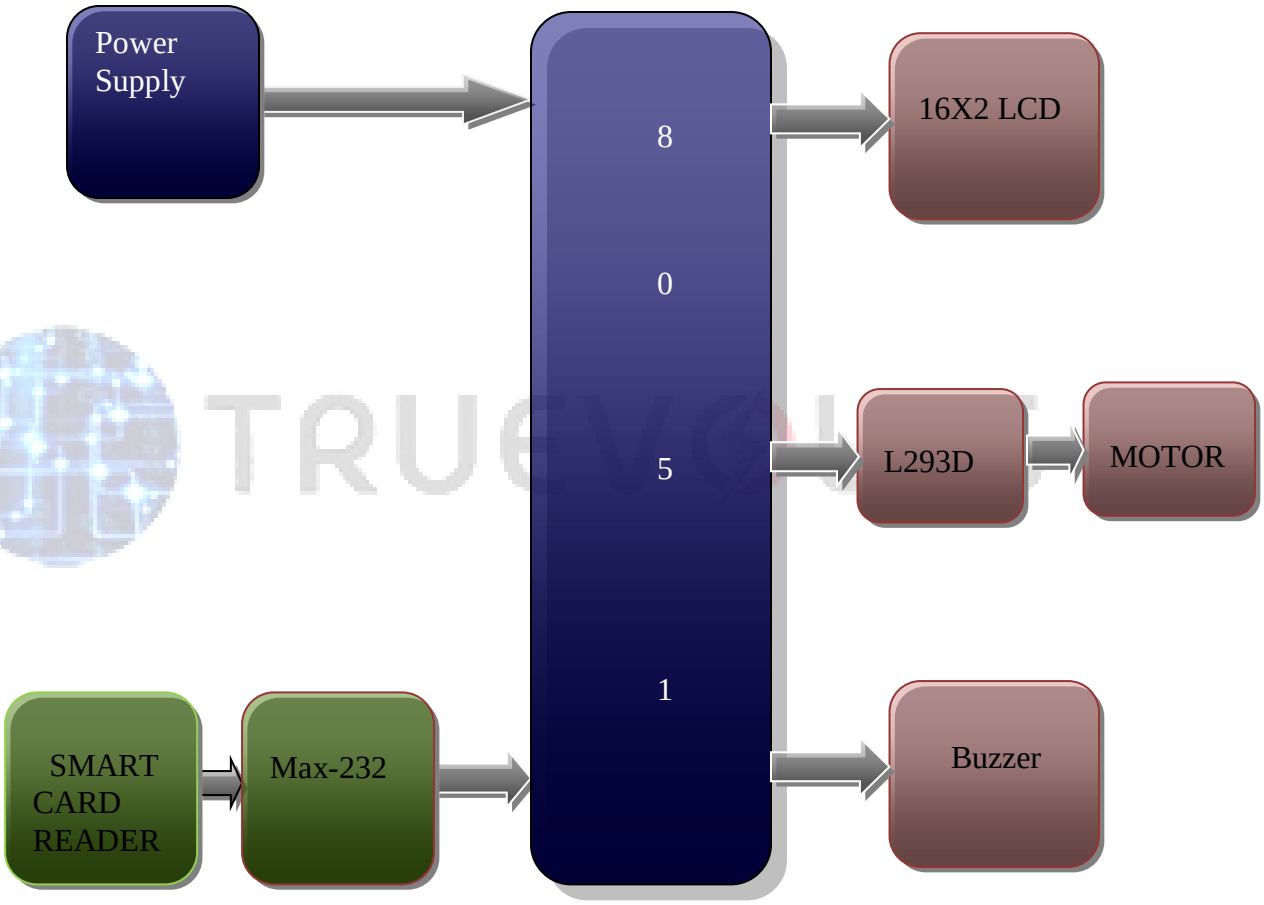
This project is built on an 8051 micro controller; in this project each user is assigned a smart card which holds a unique serial number. When a valid user with a card enters into the parking area of an apartment or office or a gated community, his card is authenticated and allows the personnel by opening the gate for car parking slot, if the card is not authorized at that community, then a buzzer is activated to inform the security personnel. An LCD is interfaced to the project to display the status of the system. The smart card reader is interfaced to the microcontroller by a serial communication interface.

In this project 7805 is a regulator and it avoids noise spikes in power supply. Smart card reader is connected microcontroller through serial port. These smart card readers works under 9600 or 4800 baud rates. 16X2 LCD connected to microcontroller through digital I/O lines.

APPLICATIONS:

- Parking system
- Apartments

BLOCK DIAGRAM:



POWER SUPPLY BLOCK DIAGRAM