GSM BASED DOOR OPEN AND CLOSE

AIM:

Design and development of GSM based door open and close using Arduino.

PURPOSE:

In today world security is primary concern for homes, offices, laboratories and industries. Everyone can access normal doors in these premises. We have some security systems for door access like RFID, Smart Card, and Finger print…etc. But all these are static and if one has access then they can access in any time. Here we propose GSM based door open and close with security system. Using this main admin can access door from remote location at any point of time. Also main admin can know fire status alert in premises.

DESCRIPTION:

This project includes GSM (Sim800C) module, which is connected to Arduino through UART interface. Dc motor Controlled by Arduino through L293d. When DC motor rotates in clock wise then door will be Close. When DC motor rotates in anti-clock wise then door will be Open. Fire sensor connected to Arduino digital pin.

WORKING:

When User sends open command from mobile SMS then Door will be open. When user sends close command from mobile SMS then door will be close. User can get Door status by sending request SMS to Arduino. Door status information will be displayed on LCD. If fire occurred then buzzer will be ON and SMS will send to registered mobile number.

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
GSM	:	SIM800C
Motor Driver	:	L293D
Fire Sensor	:	Infrared Type
Motor	:	5V DC
Power Source	:	12v 2 amp Adaptor

SOFTWARE:

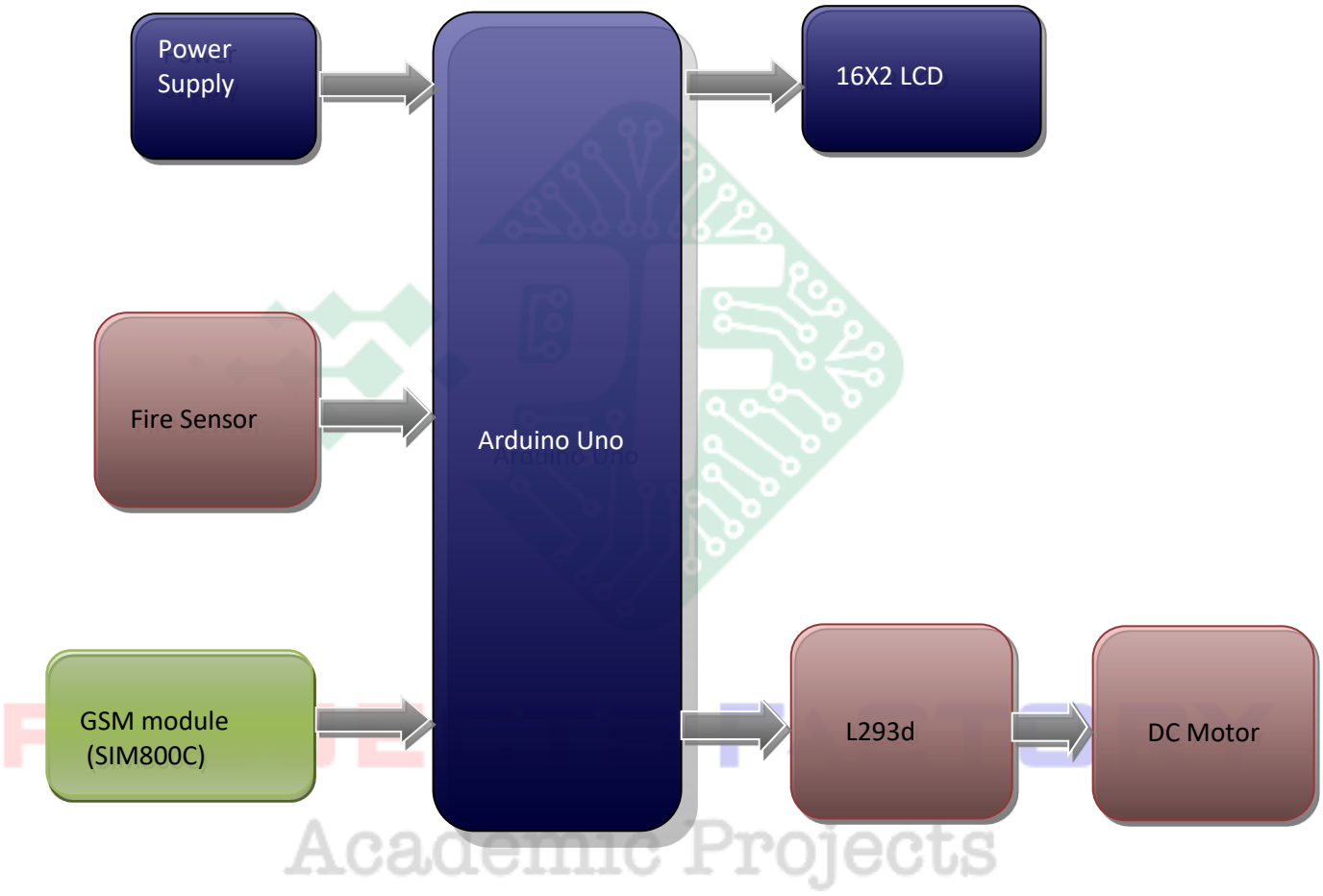
Arduino IDE

Proteus based circuit diagram

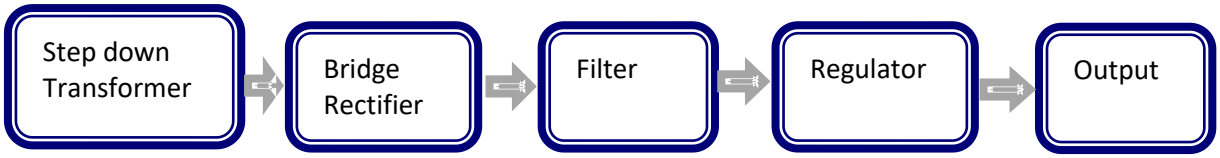
APPLICATIONS:

- Home Applications
- Laboratories
- Industrial Applications
- Home automation and security

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



INTERFACES COVERD:

- We have covered GSM (SIM800C) module interfacing
- L293d Motor Driver
- Fire sensor interface