

## **VEHICLE TRACKING AND ALCOHOL DETECTOR WITH ENGINE LOCKING SYSTEM USING GSM GPS**

### **AIM:**

Design and Development of Vehicle tracking and alcohol detector with engine locking system using GSM GPS.

### **PURPOSE:**

Most of the accidents happening because of drunk and drive. Present vehicles don't have any alcohol detection systems. Providing such kind of systems to protect from accidents is necessary. Here we propose solution like vehicle tracking and alcohol detector with engine locking system using GSM GPS.

### **DESCRIPTION:**

This project includes GSM (Sim800C) module, which is connected to Arduino through UART. GPS module connected to Arduino through UART interface. DC motor controlled by relay which is connected to Arduino digital pin. Assume DC motor is like vehicle engine. Alcohol sensor (MQ3) connected to Arduino digital pin.

### **WORKING:**

Here vehicle started by activating ignition key. When ignition key activated then motor will be ON. When MQ3 detects alcohol then Arduino will OFF dc motor (vehicle engine). When alcohol detected then SMS will send to registered mobile number. SMS contains GPS location along with Google maps assistance. User can know the alcohol sensor status and vehicle location by sending SMS command.

## **TECHNICAL SPECIFICATIONS:**

### **HARDWARE:**

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
GSM	:	SIM800C
GPS	:	NEO-6M
Motor	:	DC Motor
Relay	:	12V DC Electromagnetic
Alcohol Sensor	:	MQ3
Power Source	:	12v 2amp DC adaptor

### **SOFTWARE:**

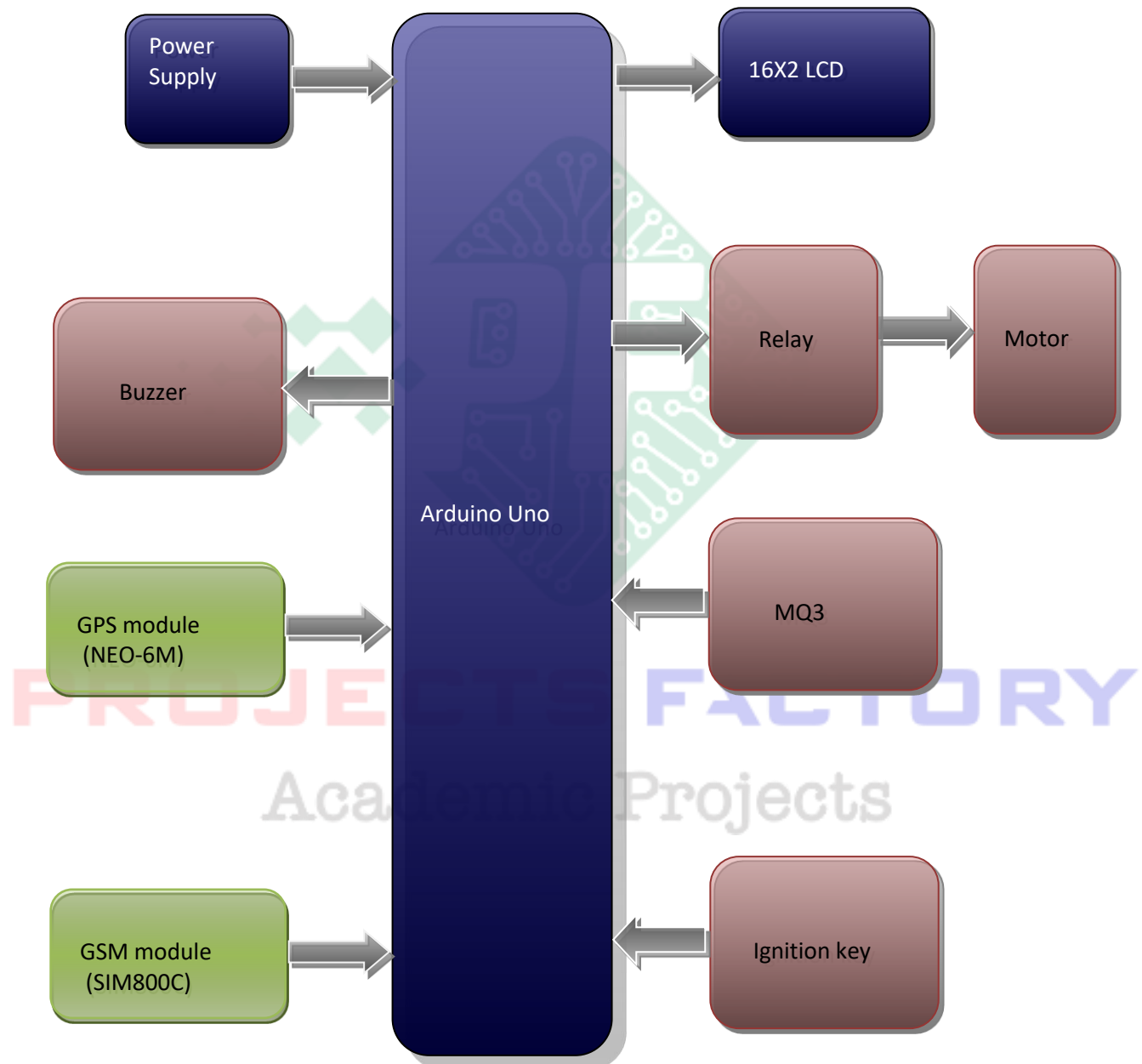
Arduino IDE

Proteus based circuit diagram

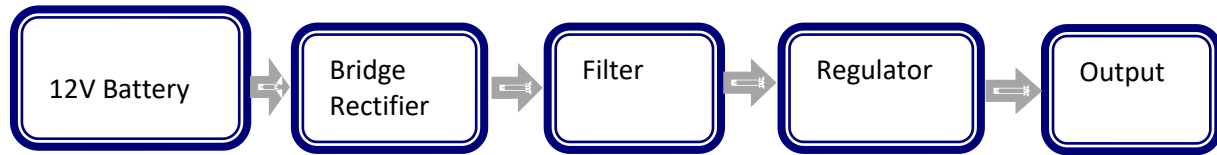
### **APPLICATIONS:**

- Vehicle Tracking
- Accident Prevention
- Fleet Management

**BLOCK DIAGRAM:**



## POWER SUPPLY BLOCKDIAGRAM:



## INTERFACES COVERED:

- We have covered GSM (SIM800C) module interfacing
- GPS (NEO-6M) module interfacing
- MQ3, Relay interfacing

**PROJECTS FACTORY**  
Academic Projects