

GPS TRACKER &ALCOHOL DETECTOR WITH ENGINE LOCKING SYSTEM USING GSM

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Abstract- *In this project the alcohol is detected by the alcohol sensor MQ3 which is the senses in the car while in case drink alcohol .The alcohol sensor senses alcohol and then send a signal to microcontroller which forward a particular signal to GSM ,then the GSM send a message to a particular preregister mobile that the driver is drunk and burger beeping and led is indicated red and then the engine will be lock .if any other person want to drive the then the user send a particular massager to the system and then the system will be unlock but alcohol sensor will continue working. In this way the owner get the real location by receiving the exact position of the car along with the longitude and latitude of that place then it will be copied to the Google map and the location of that car and easily be accessed.*

Key Words: *Global System for Mobile(GSM) module, Global Positioning System(GPS), Google map, Microcontroller 328.*

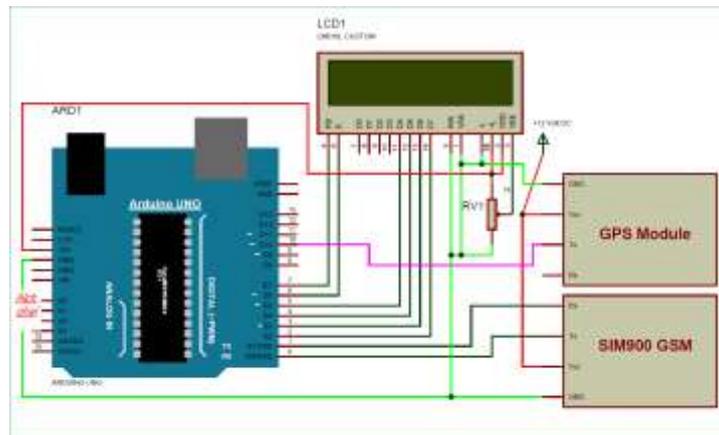
INRODUCTION-

Every hour, 40 person which are under the age of 25 die in road accident. And as per the world health organization, road traffic injuries caused an about 1.24 million deaths worldwide in the year 2010, slightly down from 1.26 million in 2000.

The main intention of this system is to avoid the rate accidents which are normally happened due drunkenness of driver. this system detect the drunkenness of driver and prevent them from driving, so this try to provide one type of security or safety mechanism to driver and save live. there are also lot of accident reason such as high speed of vehicle, drinking.

to implement such system a GPS with high accuracy is required, if the low accuracy GPS is used in this system, system may give some error that car location. In this system we send the message name DRUNK to the service and the GPS of the device send longitude and latitude of that called location, further this message will be send the user for tracking the location of your car. The microcontroller 328 is a small microcontroller which is used for controlling whole process in this system. This paper provide the concept for the developing a low cost, high accuracy and user friendly system by using Google map. Google map can improve the accuracy of GPS. This paper present research that applies Google map to describe the GPS tracking and alcohol detecting with engine locking system using GSM improvements are proved by Google map that may high accuracy.

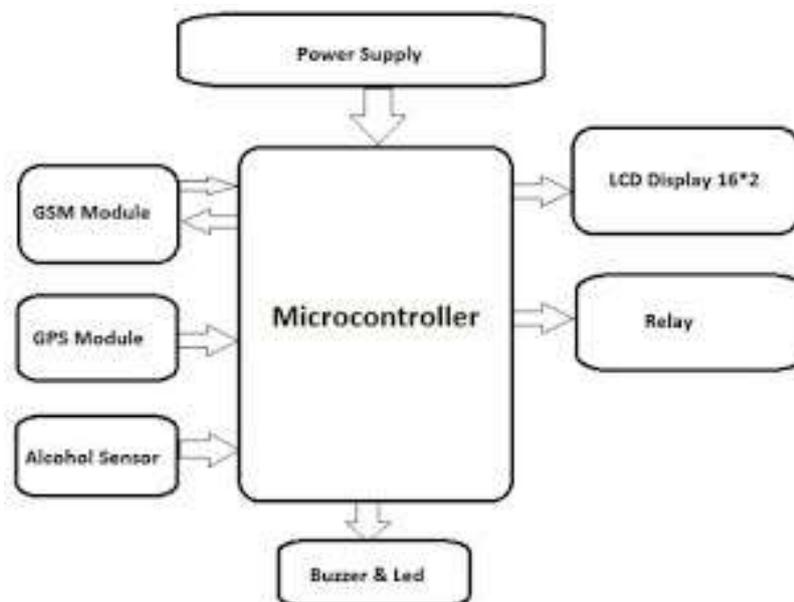
Architecture of the system shown in figure



EXISTING SYSTEM

Research paper of 2018 the GPS alcohol detecting and engine locking system using GSM system is complex due to use of ARM control in 2016 the paper and GSM tracking and alcohol detecting system with engine locking system using alcohol detector, but it is not necessary to carry alcohol detector to the owner. Now we design GSM tracking and alcohol detecting system with engine locking system using GSM, Which is the economical.

We are various researchers in improving the accuracy of GPS point now we can simply find the car location using the Google map. Google map web mapping service developed by Jens Eilstrup Rasmussen. It provides turn by turn navigation dedicated parking assistance feature. It is primarily available on the mobile.

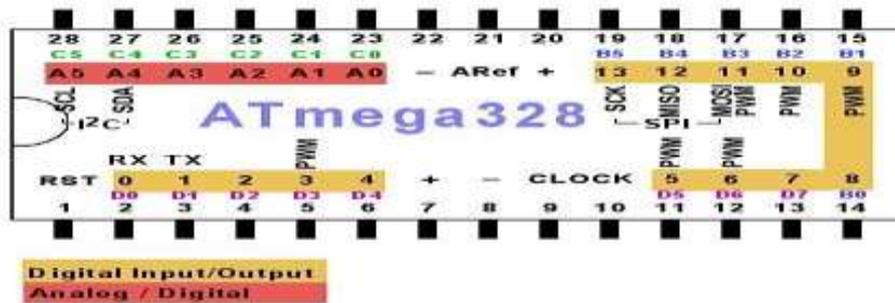


HARDWARE SYSTEM DESIGN

Arduino Uno-

Arduion Uno is microcontroller board based on ATmage328P. It has 14 digital pin for input/output pins of which 6 can be used as analog output and 6 analog input, a 16 MHz quartz crystal, a USB connection a power

jack and ICSP reader and RESET. It has every things required to support to the microcontroller. It needs 12 Volts power in my system.



GPS MODULE

GPS navigation device, GPS receiver or simply GPS is a device that capable of receiving information from GPS satellites and calculate the device's geographical position, anywhere On the Earth where there is an unhampered line of sight to Three or more GPS satellites. The system provides facilities to Military, civil and commercial users. It is maintained by the United States government and is freely accessible to everyone with a GPS receiver. To calculate 2D position (Longitude & Latitude) and track movement. GPS module is a perfect for applications involving navigation, tracking or surveying. GPS module requires 5V Power and 40mA Current, it also has -159dB sensitivity.



GSM MODULE

GSM module basically a GSM modems (SIM900). We are using SIM900 & then interface it with Arduino Uno simply. SIM900A GSM means the module support communication in 900 MHz bands. We are from India and so most of the mobile works providers in this country operate in the 900 MHz. It is needs the 12 Volts.



SOFTWARE SYSTEM DESIGN

Integrated Development Environment (IDE) - The open source software (IDE) make it easy to write the code and debugging software. IDEs have also popular on the Mac, OS and MacOS, which support the multiple languages. We the also use of the Arduion Uno Software.

ADVANTAGE

Application automatically operates location it can be used place where GPS satellites connectivity is not available .At that the it providers for location service. The massage is send without internet if user do not have a smart phone then he/she can easily track the location with help of coordinator who is send by the GSM on your register mobile number.

CONCLUSION

GPS alcohol detecting and engine locking system using GSM system has been successfully implemented. This system divided into three sub system GPS, GSM and Arduino Uno subsystem. When the MQ3 sensor are detecting the alcohol in the car then beeping a sound in car that means altering to driver and GPS is use for the position of the car in the from longitude and latitude format. This longitude and latitude are receiving by the GSM with help of Arduino Uno system GSM forward this information to the user or owner mobile number who is preregister and then the user can be tracker location of the car and the Engine of the car will be lock

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