

A SMART THEFT SYSTEM FOR AUTOMOBILES SECURITY

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ABSTRACT

The main of this system is to provide the security to the vehicle. This is done by auto generated SMS to the owner of the vehicle that entry to the vehicle is unauthorised. The main advantage of this system is that the owner need not to send the SMS or call to the vehicle unit about not to start the vehicle. In the proposed system if unauthorized person wants to start the vehicle then processor gets interrupted through switch mechanism and command is given to the GSM modem to inform the owner of the vehicle. The system uses LED, as soon as the SMS is sent LED will turn ON for short duration of time after that it will get OFF indicating that ignition of engine is stopped till the authorized person start the vehicle.

KEYWORDS: AVR, GSM Modem, Mobile Switching System, Network Switching System, Vehicle Unit.

two-wheelers while 30% are four-wheelers. The law enforcement agency usually able to manage about 20-25% of the vehicle security.

The objective of this system is to provide more secured system than the present ones. The main idea behind this paper is the intimation given to the owner of the vehicle about any unauthorized entry when an attempt has been made to steal the vehicle. To intimate the owner of the vehicle about any unauthorized entry, wireless technology of GSM is used. This paper also tries to limit the stealing of logo of vehicle by giving the indication of stolen logo using alarm to the people present around that vehicle. This system will help to reduce the growing crime rate of vehicle stealing.

It has been discussed that the system implementation can be carried out by use of wireless GSM technology and this can be achieved by using short message service technology of the GSM system, so as to intimate the owner of the vehicle about an unauthorized entry.

I. INTRODUCTION :

As per the police record of 2016 the 8 to 9 vehicle gets stolen every day. The security of vehicle has gone up as compared to last year. The unauthorized person make the master key with which they used to open any car or start any vehicle. Sometimes, they keep tab on a car and get customized keys made.

A. AIM:

To give the security to the different automobile.

OBJECTIVES:

In day to day life vehicles security is the biggest problem in all over the world, the main objective is to give more security for all types of vehicle.

As the branded companies logo are costlier the logo theft are increased frequently and it does not require any thing; just by removing the logo without any key and wiring. It's very much important to give the security to the logo thefts. The secondary aim of this system is to provide the security to the logo.

Also this system provides the GSM module for informing about the unauthorized attempt.

Previous records shows that the most of the cases happened in the metropolitan cities or in the urban areas while very much less cases happened in rural areas. The survey has directed that 80% vehicle security departed because of the neglectful owners who parks their vehicle in open areas, remain it outside their houses or nearer to road sides. Of the total vehicles stolen, almost 70% are

II. METHODOLOGY:

The fig.1 shows the proposed system. The current system mainly undergo the drawback of hot wiring that is the main reason of stealing the vehicle. Hot wiring is nothing but sidestepping an automobiles ignition interlock and starts it without any key. If owner loss his/her key then definitely thief attempts to bypass automobiles ignition interlock. The concept of hot wiring push button shows the hot wiring concept. Whenever two wires are shorted then spark plug will get ignite. Here push button is connected to show the hot wiring connection, when it is pressed (hot wiring is shorted) then the monostable gets triggered and at the same time LED will get ON which indicates the state of engine.

The message is sent to owner when engine gets ON. On the hand switch is connected behind the logo. When someone tries to remove it then switch is ON and microcontroller sends signal to buzzer and it will not get OFF till the switch is off.

The system is mainly designed on the theft of hot wiring of a vehicle. When someone shorts the hotwiring without use of key the push button is in the ON state which indicates that microcontroller sends signal to GSM module and message is sent to owner of vehicle that unauthorized persons attempts to start the vehicle.

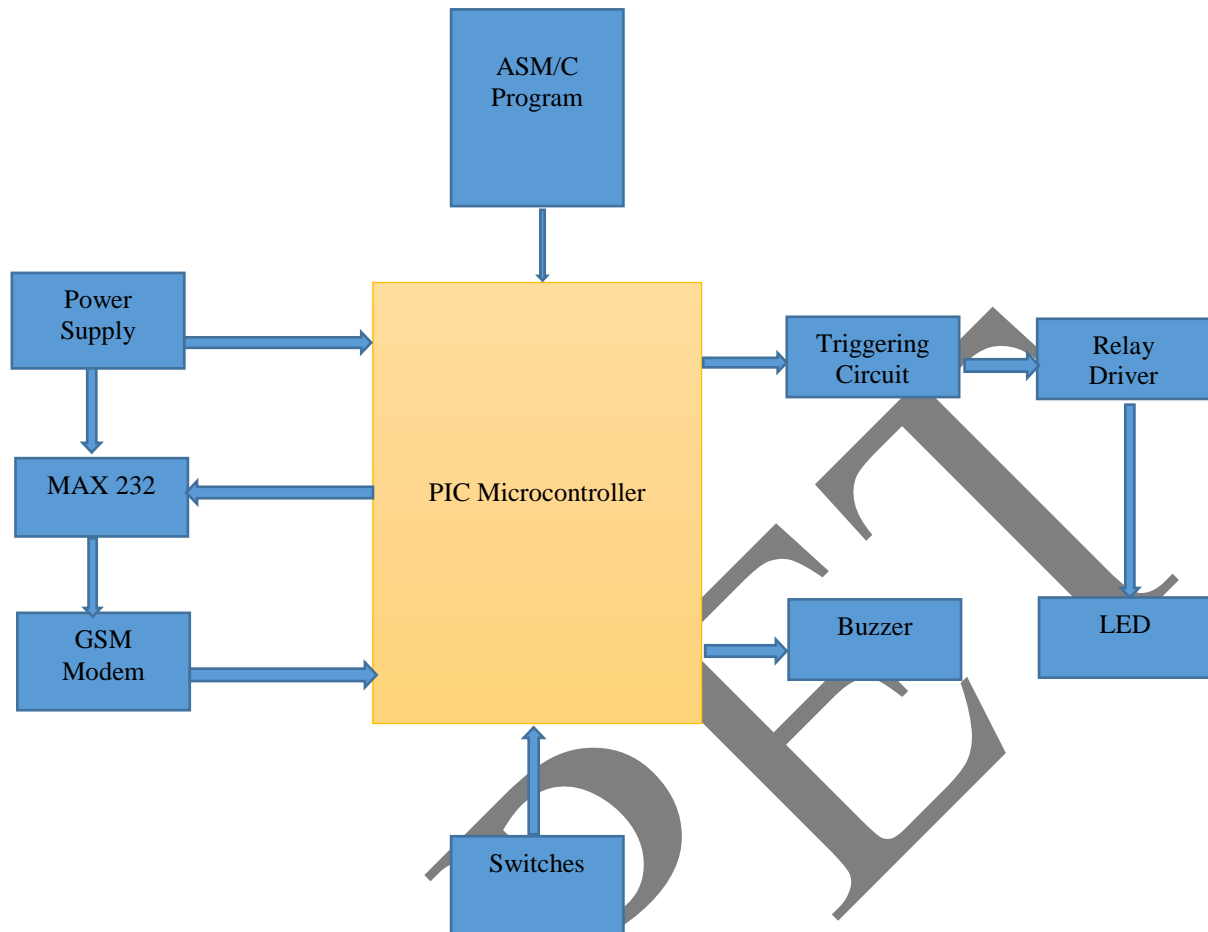


Figure 1 Block Diagram of Proposed System

III. RESULTS AND DISCUSSION:

The flowchart of the system is shown in the figure. At start the pin 3.2 and pin 3.3 of port 3 are set with logic 1 on the other hand in port 1 P1.1 is set to logic 1 whereas pin P 1.4 is set to logic 0. Later on there is initialization of baud rate 9600 for the functioning of GSM module, this is done by TMOD register in microcontroller unit. Here there is continuous monitor of pin P 3.2. When hot wiring short by any unauthorized person then this pin goes low and it is sent on pin P1.1 which energizes the relay indicating that engine is ignited. As soon as the pulse width of monostable goes low engine will get turn off. At the same time, the message is sent to the owner of vehicle about the unauthorized attempt on the vehicle.

Additional facility is made on the back side of the logo. Initially this switch is connected to the Vcc when somebody tries to remove the logo then there is drips down of the switch then it connects to ground. Due to this pin P 1.4 goes high & buzzer turns ON. The buzzer turns on until the switch connects to Vcc.

As shown in the flowchart the system is divided it to two parts one for detecting the making short at hot wiring. When unauthorized person used to on the automobile by not having any key then he/she use to make short the hot wiring to ON the vehicle; when hot wiring is short then there is high to low pulse on the Pin P 1.1. This high to low pulse on the GSM module and message is sent to the owner of the vehicle. The owner understands the unauthorized attempt made by someone.

On the other hand the Pin P3.3 is connected to the logic 1 for the continuous monitoring of the logo theft. When the logo is removed then switch is connected to the back of logo will get off which gives logic 0 on the pin P3.3. At that time the buzzer is On continuously and will get on continuously till there is logic 1 on the pin P3.3. Both objectives are done on the same system.

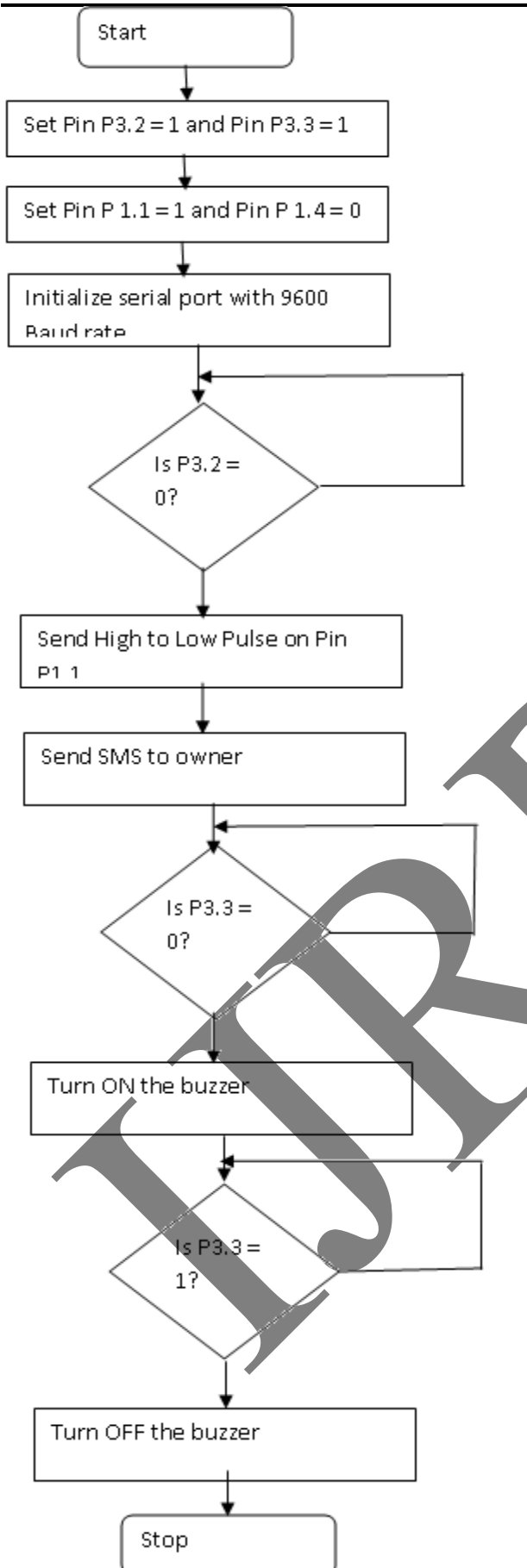


Figure 2 Flow Chart of Proposed System

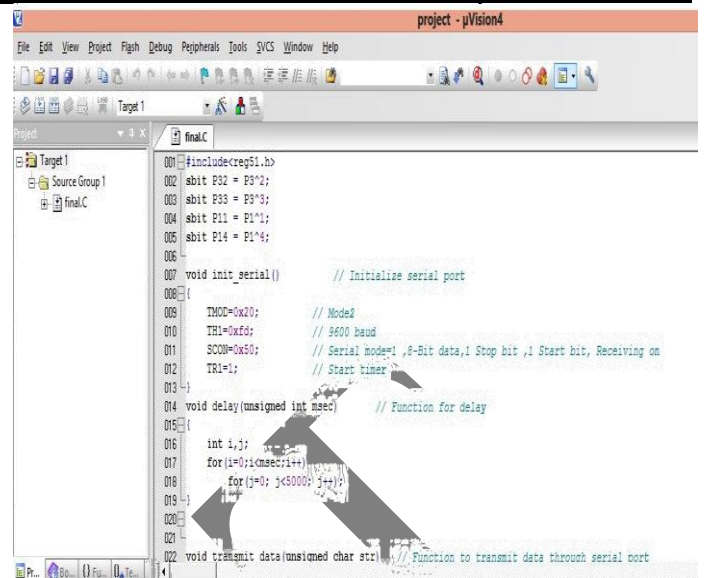


Figure 3 Software Environment on Keil Window

As shown in fig. 3 the programming and debugging is done in keil microvision tool. Basically different port pins are used for the programming of microcontroller. Basically different port pins are used for programming the microcontroller. By using Sbit command different port pins are set at high or at low level. When the hot wiring is short then it changes the values on that respective pin.

IV CONCLUSION:

The proposed system is useful for giving more security to the automobile. This system enlightens the unauthorized attempts made on the hot wiring of the vehicle and can be done by continuously monitoring port pins of the microcontroller. When hot wiring is short then there is high to low on the pin and which gives interrupt to microcontroller and message is sent to owner by activating GSM module. Also logo theft are monitored by connecting switch to back of logo, continuous buzzer is ON when anyone removes the logo. When switch is again pressed then and then only buzzer will get off. The proposed system gives the continuous monitoring in the absence of them.

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