

Car Logo Theft Detection Using Raspberry Pi Technology

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Abstract :-In this paper we exhibit an answer on the most proficient method to ensure the auto logo with reasonable expense. Here, we make an endeavor to build up a framework in light of raspberry pi-2 innovation. With this framework when somebody is attempting to take the auto logo it alarms the auto proprietor when he is at closest separation and in addition when he is far from the auto. When somebody is attempting to take the auto logo it cautions the auto proprietor with alert when he is at closest separation. In any case, with this caution it is unrealistic to alarm the auto proprietor who can't hear that alert. So all things considered we can utilize GSM system to send the instant message to the auto proprietor at his telephone. Added to this the auto proprietor will get the caught picture of that cheat.

Keyword: Raspberry –Pi, GSM, Camera, Pressure sensor.

1. Introduction

Vehicle is the essential spot where prosperity starts. In these days, auto logo thefts are growing. In India, logo of vehicle is stolen at customary interims an exasperating knowledge. Therefore we ought to oblige vehicles to equip with the latest example of developments and measures to make it a safe from punk. The security system has been overhauled in all fields in the overall population. Auto security has moreover fulfilled various snappy changes, yet the costs of all the security upgrades are so high and it is not sensible for all the vehicle proprietors. This foresee is intended to give the best security answer for auto logo at sensible expense. Here, we make an endeavor to build up a framework in light of raspberry pi-2 innovation. In proposed framework we exhibit an answer on the best way to secure the auto logo. With this framework when somebody is attempting to take the auto logo it alarms the auto proprietor when he is at closest separation and also when he is far from the auto. The framework naturally alarms the auto proprietor and gives abnormal state security.

The Raspberry Pi 2 model B is the second era Raspberry Pi. It supplanted the first Raspberry Pi 1 Model B+ in February 2015. Raspberry pi is a Visa measured PC .It works just about as a PC. It offers more adaptability for learners than the leaner (Pi 1) Model A+, which is more valuable for inserted activities and ventures which require low power.

1.1 Problem Formulation

- From the exploration directed, it is found that there are various security systems open for auto prosperity however there is no such a structure diagram for auto logo prosperity.
- As analyzed about the developments used as of now, microcontroller based systems just performs specific single errand. To perform diverse errands we require another gear which makes the system huge.
- With significantly more hardware the cost of the structure is also high.
- For that reason we develop a system in light of raspberry pi-2 advancement which gives the best security to the auto logo and alarm the auto proprietor.

1.2 Objectives

The essential destinations of this study can be outlined as takes after:

- The most importantly target is to build up a framework to shield the auto logo from hoodlums.
- None of the segment of the framework would meddle the working of the auto.
- To offer just the validated individual to view message and picture.
- To make the framework extremely sparing and easy to use which requires low power.

2. Related Work

We need to begin the motor by smashing their finger in the biometric framework. There are two conceivable results that finger vein match or nonchalance to encourage. In the event that the finger vein is match vehicles begin working legitimately. In the event that it neglects to match it cautions the auto proprietor by sending the message through GSM system. This framework in addition alerts about the driver liquor affirmation and sluggishness. This framework depends on upon the Raspberry pi advancement.

Sharp recognition using keeping in mind the end goal to check structure is finished Raspberry pi and PIR sensor. There is infrared sensor to perceive the district of number of persons in the room. Camera is really turned on when the area of individual is perceived. By then the data is gotten and sends it to the impelled cell phone of embraced individual through 3G Dongle.

To control the outlet of the fuel injector by technique for electronic solenoid valve, which will be controlled by the microcontroller through the driver circuit. The mystery key is given to the endorsed individual of the vehicle. The close solenoid opens and the vehicle starts unless and until mystery word will facilitate. If it fails to arrange, the system will send message to the endorsed individual by method for GSM modem. An alert is in like manner joined to the structure. LABVIEW stage can replicate the system.

It is particularly troublesome for the criminal to take the vehicle by utilizing this gadget. Sensors are resolved to the vehicular body. It will stop the ignition of the vehicle when some individual touches it and when any one is trying to

touches for more than 3 times. Unless and until we deactivate the gadget with remote the ignition of vehicle won't begin.

3. Proposed Work

When somebody is attempting to take the auto logo it alarms the auto proprietor with caution when he is at closest separation. Be that as it may, with this alarm it is impractical to alarm the auto proprietor who is not able to hear that caution. So all things considered we can utilize GSM system to send the instant message to the auto proprietor at his telephone. Added to this the auto proprietor will get the caught picture of that hoodlum.

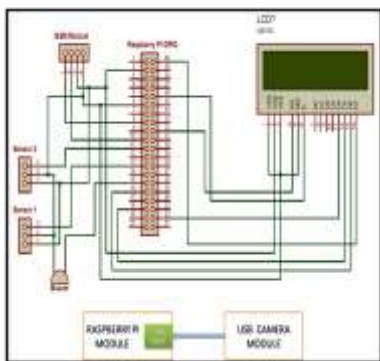


Figure : Circuit Diagram

In proposed structure we demonstrate an answer on the most ideal approach to secure the auto logo. With this system when some individual is endeavoring to take the auto logo, it cautions the vehicle proprietor, when he is at nearest separate from the auto. In any case, this condition is just accessible, if the auto proprietor is close to his auto. Be that as it may, not for a man who is a long way from auto with a base separation of 100 meter. The system subsequently alerts the auto proprietor and gives unusual state security.

Here in this framework we have utilized a raspberry pi 2 B, which is a most up to date rendition of raspberry pi arrangement. A USB wifi dongle is associated with the USB port of Raspberry Pi 2 B for web association which can use to send the email of the individual. A framework contains the touch sensor for logo, a GSM module for SMS sending, a USB wifi dongle to give web availability to email sending and a ringer for caution.

4. Result and Discussion

Thus we have introducing car logo anti-theft system. This system is capable of protecting the car logo by alerting the car owner with alarm and notification is shown on the LCD display as follows.



Fig 5.1 Notification shown on LCD display

At the same time text message will be send to the car owner.

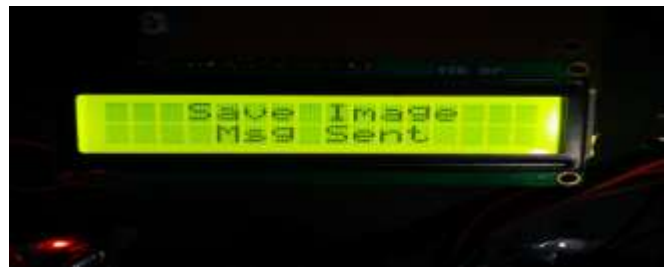


Fig 5.2 Message sent notification shown on LCD display

Conclusions and Future Scope

Conclusions

Accordingly we have presenting auto logo hostile to robbery framework. This framework is fit for ensuring the auto logo by cautioning the auto proprietor. Likewise it will catch the picture and transmit it to an advanced cell. With the assistance of this framework we can make vital move against robbery with confirmation. We make this framework with viable current advancements and programming calculation.

Raspberry PI is valuable for little application advancement since it can be utilized to coordinate with numerous parts, for example, speakers, LED lights, sensors, cameras and remote correspondence units to create savvy applications. The vast majority of the exploration work with respect to reconnaissance application utilizing WSN, camcorder, coordination of different techniques, and so forth. Evaluates their outcome on recreation or copying approach. In any case, methodology is an ongoing execution of different system parts. The arrangement of the IP web cam alongside PIR sensors not just upgrades the general framework, it additionally opens up new measurements for enhancing the framework.

Future Scope

- In future we plan to give a remote hand-off association and remote sensors which can be portable and can be worked and can be utilized as a part of organization and instates for security to the entire working with the one single framework.
- Voice caution circuit can be added to this framework which shows that the room is full and the persons can't enter.
- The gadgets, for example, TV, clothes washer, can likewise be controlled utilizing robotization as a part of future.
- Future work is to find the quantities of persons found precisely on that zone and their position so that exact data can be acquired on the beneficiary side. It will capture the image and transmit it to a smart phone. With the help of this system we can take necessary action against theft with proof. We create this system with effective current technologies and software algorithm.



Fig 5.3 E-mail sent notification shown on LCD display

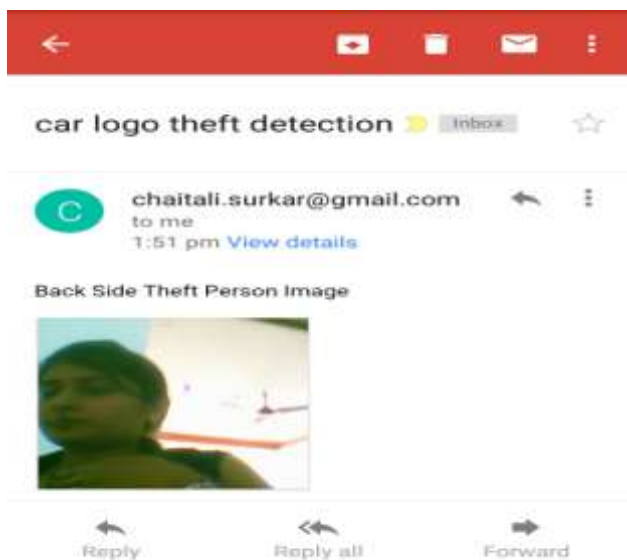


Fig 5.4 Theft person image on E-mail

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