DEVELOPMENT OF VEHICLE THEFT LOCATION AND INTIMATION BY USING IOT

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every car and is placed in a secure and accessible location in the car.

II. Working Principle

At first, the OR code will be scanned, and when the key which is used as a switch is on, you get access to give the required login credentials. When the given login details are valid the owner receives an OTP which will be entered and the vehicle ignition starts. When the vehicle is left idle then you switch on all the security system using the Blynk App which activates the Anti-theft security.And the owner disables them while the vehicle is used by him. The security systems help to provide the required safety for the vehicle by generating a message to the owner's mobile which says that your vehicle is moving.

III.Block diagram

Abstract

In this paper development of vehicle theft location and intimation by using Iot is done. The automobiles theft increases day by day rapidly and the ratio of unlicensed drivers also increased which creates a major responsibility throughout the manufactures and as well as owners. This proposed system consists of a QR code and login credentials which ignites the vehicle when the details are valid. GPS system helps to locate the vehicle when any movement or theft has been taken place. Ultrasonic sensors help to detect when the distance varies and give a message to the authorized(owner) person of the vehicle. Hence these project gives effective result in terms of safety application.

Keywords:ESP32S,Ultrasonic Sensor,GPS,MEMS(Sensor),DC Motor,Relay

I. Introduction

Vehicle Safety and security are one of the major issues that pose challenges in the automotive field.A sophisticated mechanism that ensures security and safety of automobiles is achieved by using a QR codeQR codes can be used with many mobile devices operating systems like Android and IOS.These devices support URL support redirection, which allows QR codes to send metadata to existing applications on the device.A unique QR code will be generated for

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Hardware Requirements:

ESP32S:The ESP-32S is the latest version Wi-fi Bluetooth combo module is ultrahigh performance and ultra-low-power consumption Wi-Fi and Bluetooth combo wireless platform.

Ultrasonic Sensor: It is an electronic device that measures the distance of a target object by emitting ultrasonic sound waves. Frequency of sound waves is the greater human audible frequency(>20KHz).

GPS(Global Positioning System):A complete GPS Module with an active antenna integrated, and a built-in EEPROM to save configuration parameter data. Operating temperature range: -40 TO 85°CUART TTL sock.

MEMS: The ADXL345 Triple Axis Accelerometer measures the static acceleration of gravity in tilt-sensing applications, as well as dynamic accelerations resulting from motion or shock.

Relay: The input of 1 channel 5V 10A relay module are isolated to protect any

delicate control circuitry. High impedance controller pin.

DC Motor: The Metal gears have better wear and tear properties.

The shaft has a hole for better coupling. Good Quality Gears.

IV. Software Requirements

Arduino IDE:

The Arduino Integrated Development Environment(IDE) is a cross-platform application (for Windows, macOS, Linux) that is written in functions from C and C++.It is used to write and upload programs to Arduino compatible boards.











VI. Conclusion

Our Proposed system has been equipped with the capability of providing the required security to the vehicles.Through this proposed system we achieved the prevention of unlicensed drivers.The safeguarded vehicle will be continuously monitored and location will be continuously updated constantly.

VII. Future Scope

In future, many modifications can be made so that many other advantages can be seen by using different sensors. We can interface with different sensors such as alcohol detector, drowsiness detector, heart rate detector, etc. In terms of this, we can really prevent an accident and save lives. This also be developed can bv interconnecting to a controller module that takes the photographs of the accident spot that makes the tracking easier.We can also interface some options such as capturing the image of the person who tries to access the vehicle and sends the image of the person who tries to invade into the vehicle will be sent to owner of the vehicle and by using the GSM Module and GPS, we can track the location of the vehicle easily when theft and can also be used to send the location of the vehicle to the owner.

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