



VEHICLE THEFT INTIMATION WITH FUEL LOCKING SYSTEM

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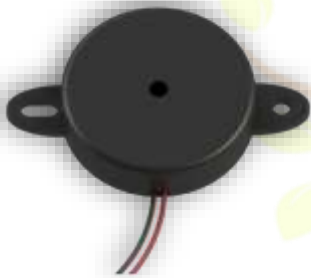
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Abstract:

Due to the significant rise in urban vehicles, the safety of vehicles has become a growing concern among citizens. However, the existing anti-theft systems lack advanced live tracking and monitoring features to prevent vehicle theft. To combat this issue, we have developed a vehicle anti-theft tracking system based on IoT technology that can offer owners comprehensive and proactive services to enhance vehicle safety. Owners can inspect the system's data using any device,

whether it's a mobile phone or a laptop, through the locally integrated page within the system. When the system is triggered by the vehicle's infrared sensors during a theft, the GPS module will send location data to the local page. Our team has designed a system that allows for quick and easy access to the vehicle's location for owners. Using either a mobile phone or laptop, our system is more user-friendly and convenient than other comparable products, making it easier for owners to track their stolen vehicles in real-time.

B. Buzzer: A buzzer is a simple and commonly used electronic device that produces an audible sound when it receives an electrical signal. It is typically composed of a piezoelectric element that vibrates when it receives an electric current, producing sound waves that create a beeping or buzzing noise. Buzzer modules are commonly used in electronic circuits for a wide range of applications, including alarms, timers, notification systems, and feedback signals. In research papers, buzzers are often mentioned in the context of experimental setups where they are used as an alert system to notify researchers or participants of a specific event or to indicate a certain task or action. The use of buzzers in research studies can enhance the reliability and validity of the findings by providing consistent and standardized feedback to participants. Additionally, buzzers can be used to measure reaction times and response accuracy in cognitive psychology experiments, and to track the progress of interventions in clinical studies.



C. Global Positioning System (GPS): This module is an electronic device that receives and processes signals from GPS satellites to determine the location, speed, and time information of the device. It is widely used in navigation systems, tracking devices, and various other applications that require accurate location information. GPS modules consist of a receiver that captures signals from multiple satellites, a processor that analyzes and decodes the signals, and a memory unit that stores location and time data. They also include an antenna that helps to receive satellite signals and amplify them for processing. The GPS module communicates with other devices through various interfaces such as UART, SPI, and I2C. The accuracy of GPS modules depends on various factors such as the number of satellites in view, signal strength, and the position of the device. However, modern GPS modules can achieve accuracy up to a few meters. GPS modules have become increasingly popular due to their compact size, low power consumption, and ease of integration with other devices. They are widely used in applications such as vehicle tracking, personal

navigation devices, fitness trackers, and unmanned aerial vehicles (UAVs). With the advent of the Internet of Things (IoT), GPS modules are becoming an integral part of various IoT applications such as smart cities, agriculture, and logistics.



D. Relay: Relay can be used to activate the whole theft identity system. The location will be sent to the owner. If the switch is not in ON place an alert will not be sent and information of the location will not be shared. By leveraging the switch, able to order system activation and inactivity.



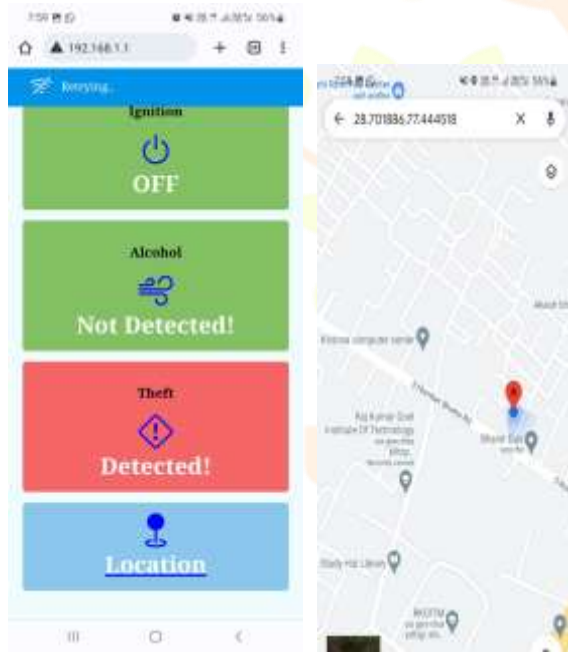
Alcohol sensor:

The alcohol sensor is technically referred to as an MQ3 sensor which detects ethanol in the air. When a drunk person breathes near the alcohol sensor it detects the ethanol in his breath and provides an output based on alcohol Concentration. If there is more alcohol concentration, then buzzer will turn on and owner will get an alert on his phone.



Testing result:

When the car is stolen, the mobile phone of the owner receives messages as shown in Figure below, which contains option to directly open



Google map by clicking on location option on page and track live location of the vehicle.

Conclusion:

The article has described a vehicle anti-theft monitoring with fuel locking system, based on GPS technology and IOT, which contains a communication platform with remote monitoring function. The owner can simply use a mobile phone to locate and monitor the car in real time, which provides the technical foundation for the development of wireless network vehicle anti-theft system.

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