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Comprehensive Vehicle Safety System: Alcohol Detection, Accident Alerts and voice warnings

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Abstract: *Drunk driving is a major cause of road accidents across the globe. Despite strict traffic laws, there are still many cases where drivers operate vehicles under the influence of alcohol. This paper presents a smart safety system that detects alcohol in the driver's breath and prevents the engine from starting. The system uses the MQ3 alcohol sensor, Raspberry Pi Pico microcontroller, GPS module for real-time location tracking, and GSM module for sending SMS alerts. When alcohol is detected, the system locks the engine and sends an alert with the vehicle's location. This low-cost and efficient system is ideal for personal and commercial vehicles to enhance road safety*

Keywords: Alcohol Detection, Engine Locking System, Road Safety, GPS Tracking, Raspberry Pi Pico, GSM Alerts, MQ3 Sensor, Smart Vehicle System, RGB Indicator, LM2596 Converter

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