

Ride Safe - Two wheeler monitoring system

Seeking parties interested in licensing and commercialization of technology.

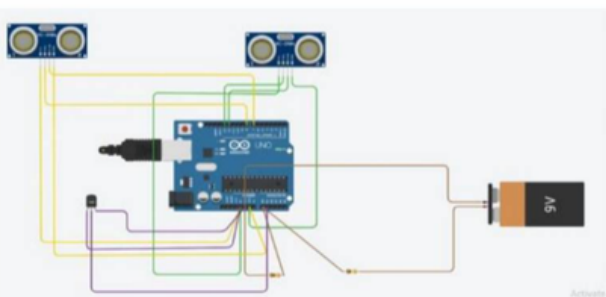
Technology Brief

This technology relates to a smart vehicle safety and monitoring system for two-wheelers designed to mitigate road accidents caused by rider negligence, non-compliance, or impairment. The system integrates two main operational modules: a helmet unit and a vehicle unit that communicate interactively to enforce safety protocols prior to ignition. The helmet unit detects helmet compliance and senses alcohol consumption; if the rider is unhelmeted or under the influence of alcohol, the system automatically disables the vehicle's ignition. Additionally, the vehicle unit incorporates multi-sensor detection—monitoring acceleration, vibration, and tilting angles—to continuously assess vehicle stability and immediately transmit automated emergency alert messages to designated devices in the event of an accident or abnormal riding behavior.

Block Diagram

Figure 1 depicts the Circuit simulation of IoT Enabled Monitoring system

CIRCUIT DIAGRAM



Technical Applications

This technology is primarily applied in smart automotive safety systems, two-wheeler fleet management, and Intelligent Transportation Systems (ITS). Key applications include personal motorbikes and scooters, commercial delivery and logistics fleets, bike-sharing and rental platforms, and municipal traffic safety enforcement systems where automated ignition interlocking, real-time rider compliance monitoring, and crash detection are critical for reducing traffic fatalities.

Salient Features

- ✓ Dual Compliance Ignition Interlock
- ✓ Real-Time Dynamic Crash Sensing
- ✓ Automated Emergency Alerting

Glimpse of the Technology



REFERENCE NUMBER

ITNT-TECH-0189



TECHNOLOGY SECTOR

Automobile, Auto-components & EV



IP STATUS

Patent Granted



APPLICATION NUMBER

202341076397



TECHNOLOGY READINESS LEVEL

TRL 3

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