



## Green Cross for Safety® Awards 2025 Finalist | Innovation

### Sober Guardian Case Study

Sober Guardian, created by independent researcher, Aaron Li, tackles one of the most pressing road safety issues today: driving under the influence. Despite legal deterrents, DUI remains responsible for nearly a third of traffic fatalities in the United States, claiming 10,000 lives and costing \$194 billion annually. Traditional enforcement methods are reactive, detecting impairment only after drivers are already on the road.

By using AI-driven facial recognition, machine learning, and IoT integration to detect impairment before a car starts, Sober Guardian can stop accidents before they happen. Drivers take a quick real-time sobriety scan through a mobile app and a sensor. If signs of intoxication are detected, the system communicates with an IoT vehicle control module that prevents the engine from starting. Emergency contacts are alerted, and alternate transportation options are suggested, ensuring safety before any dangerous decision is made.

Rather than responding to danger, Sober Guardian's proactive approach prevents it. The system is designed for broad compatibility across vehicle types, is highly accurate, and is simple enough for everyday use by families, rental fleets, and rideshare services.

Sober Guardian isn't just another tool, it's a smarter safeguard that keeps roads safer and lives intact.

