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Driver Safety using Raspberry Pi

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Abstract: This provides an approach to identifying driver drowsiness due to sleep or addiction or use of mobile phone during driving a vehicle in real time. 22 percent of injuries are attributed to cell phones, and 33 percent of incidents are due to drug or alcohol consumption, according to government report. Developing such a technology in vehicle that can track alcohol intake and use of driver's cell phones is currently a major challenge. This image processing method may be more effective to complete this task. We develop a device which uses Raspbian OS supports the camera. This device we can monitor the driver's real-time condition and turn on the warning when the mobile phone and drug or alcohol use is detected by the raspberry pi-based signal that shuts off the vehicle's ignition power source.

Keywords: Alcohol Sensor, L293d, Raspberry pi, Camera, GSM, Buzzer, Power Supply, Speaker, LED (Hazard Light)

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