

History Recording System

Abstract

The main purpose of this project is to develop a prototype of Black Box For vehicle diagnosis that can be installed into any vehicle. This prototype can be designed with minimum number of circuits. This can contribute to construct safer vehicles, improving the treatment for crash victims, helping insurance companies with their vehicle crash investigations, and enhancing road status in order to decrease the death rate. According to the World Health Organization, more than a million people in the world die each year because of transportation-related accidents. In order to react to this situation, the black box system draws the first step to solve problem. Like flight data recorders in aircraft, "Black Box" technology can now play a key role in motor vehicle crash investigations.

The project is developed to record informational data, such as: engine / vehicle speed, temperature of the engine, etc to revolutionize the field of motor vehicle accident investigation. It can also use for vehicle mapping and accident alert with the help of GPS and GSM technology. This project is designed with the help of Embedded Technology. Embedded systems are playing important roles in our lives every day, even though they might not necessarily be visible. This project is designed with Raspberry Pi, Sensors, GPS receiver, GSM modem and Web Camera. The Black box or Event Data Recorder (EDR), records information about your vehicle and your driving habits. It records speed, status of the driver, alcohol level consumed by driver, status of seat belt, status of car, location information and more. The EDR can provide, for an investigator trained to understand the data, a "snapshot" of what a car and its driver were doing in a crash. It include the ability to collect statistically relevant crash information to improve the safety of cars and trucks, demonstrate the efficacy of traffic laws (like those addressing speed etc), and to allow immediate notification of an accident to emergency personnel. The information can be continuously monitor. The raspberry pi reads the data from the sensors and these parameters will send to the User or family member through IoT.

Block Diagram

