# CAR ACCIDENT PREDICTION AND CRASH RECOVERY

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*Abstract---In this paper, a real-time automobile tracking system via Google Earth is presented. The system included two main components a transmitting embedded module to interface in-vehicle GPS and GSM devices in order determine and Send automobile location and status information via SMS. The second stationary module is a receiving module to collect and process the transmitted information to a compatible format with Google Earth to remotely monitor the automobile location and status online. The accuracy of estimated vehicle coordinates has been enhanced. The accuracy of filtered coordinates was less than 15 meters compared to about 43 meters for transmitted co-ordinates received by in vehicle GPS module. Panic switch use to control the sending information. Radiation jammer use to control the incoming calls when driving.*

## INTRODUCTION

The capacity to precisely recognize a vehicles area and its status is the fundamental objective of car direction observing frameworks. Additionally the appeal of autos has likewise expanded the traffic perils and the street mishaps. This is a direct result of the absence of best crisis offices accessible in our nation this structure is a framework which can recognize mishaps in fundamentally less time and sends the essential data to medical aid community inside a couple of moments covering topographical directions, the time and point where a vehicle mishap had happened. This alarm message is sent to the salvage group in a brief timeframe, which will help in sparing the important lives. These frameworks are actualized utilizing a few crossover systems that incorporate remote correspondence, topographical situating and installed applications. Our task expects to exhibit an innovation naturally identifying the mishap and an equipment GPS beacon dependent on GSM/GPS innovation educating at the event of mishap with adequate subtleties like precise area and time at which mishap occurred. If there should be an occurrence of mishap the gadget will send an alarm message alongside area information from GPS module to control station utilizing GSM organize. It is a thorough and powerful answer for the poor salvage reaction if there should arise an occurrence of mishap. At the server end, a control capacity will extricate significant information and store it in a database, to which mishap data from models will be surveyed continuously.

## BLOCK DIAGRAM
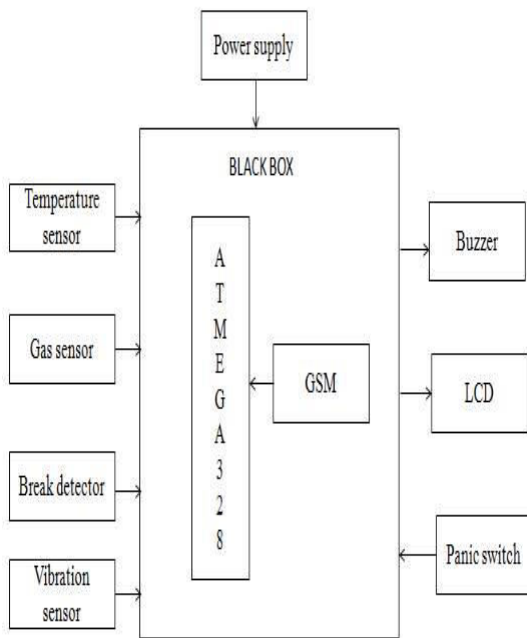


### AVR

The **AVR** is a modified Harvard architecture 8-bit RISC single-chip microcontroller, which was created by Atmel in 1996. The AVR was one of the first microcontroller families to use on-chip streak memory for program stockpiling, instead of one-time programmable ROM,EPROM, or EEPROM utilized by different microcontrollers at that point.

The AVR is a changed Harvard design machine, where program and information are put away in discrete physical memory frameworks that show up in various location spaces, yet being able to peruse information things from program memory utilizing unique directions.

## TEMPERATURE SENSORS

Temperature sensors are imperative to an assortment of ordinary items. For instance, family unit broilers, coolers, and indoor regulators all depend on temperature upkeep and control so as to work appropriately.

Temperature control likewise has applications in synthetic building. Instances of this incorporate keeping up the temperature of a compound reactor at the perfect set-point, observing the temperature of a potential runaway response to guarantee the wellbeing of representatives, and keeping up the temperature of streams discharged to the earth to limit destructive ecological effect.

While temperature is commonly detected by people as "hot", "nonpartisan", or "cold", compound building requires exact, quantitative estimations of temperature so as to precisely control a procedure. This is accomplished using temperature sensors, and temperature controllers which process the signs they get from sensors.



From a thermodynamics point of view, temperature changes as an element of the normal vitality of atomic development. As warmth is added to a framework, sub-atomic movement increments and the framework encounters an expansion in temperature.

## GAS SENSOR

A gas sensor is a gadget which identifies the nearness or convergence of gases in the environment. In view of the grouping of the gas the sensor creates a relating potential distinction by changing the obstruction of the material inside the sensor, which can be estimated as yield voltage. In light of this voltage esteem the sort and grouping of the gas can be evaluated.

## BRAKE DETECTOR

The brake sensor is typically joined to the brake cushion itself. Since brake rotors wear at a comparable rate on the front two brake rotors, it's entirely normal to just observe one brake sensor. This is provided that one side is wearing low, it's quite often the case that the opposite side is at a similar wear thickness. The brake sensor itself is typically a wire that is embodied by a plastic compound. When the compound wears out to what is viewed as a base wear level on the brake cushions, the metal wire reaches the metal brake rotor, making a light to show on the vehicle's scramble. This remains constant for the back-brake cushions and rotors, as well.

## VIBRATION SENSOR

The vibration sensor is likewise called a piezoelectric sensor. These sensors are adaptable gadgets which are utilized for estimating different procedures. This sensor utilizes the piezoelectric impacts while estimating the progressions inside increasing speed, pressure, temperature, power in any case strain by changing to an electrical charge. This sensor is additionally utilized for choosing scents inside the air by quickly estimating capacitance just as quality.

## IMPLEMENTATION

### GSM technology:

GSM alludes to second-age remote media communications standard for computerized cell administrations. First sent in Europe, it depends on TDMA (Time Division Multiple Access) innovation. GSM utilizes three recurrence groups: 900 MHz, 1800 MHz and 1900 MHz. Double band telephones work on two out of three of these frequencies, while tri-band telephones work on every one of the three frequencies.

GSM Module
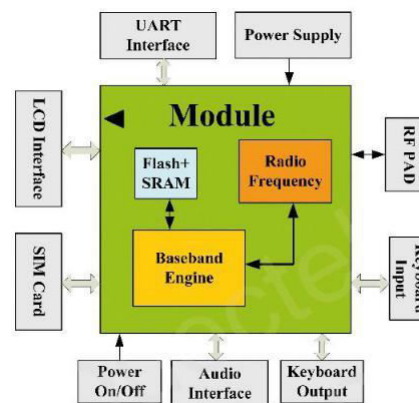


### GSM MODEM



A GSM modem is a specific kind of modem which acknowledges a SIM card, and works over a membership to a portable administrator, much the same as a cell phone. From the versatile administrator point of view, a GSM modem looks simply like a cell phone.

## LCD:

A liquid crystal display (LCD) is a flat panel display, electronic visual presentation, or video show that utilizes the light regulating properties of fluid precious stones. Fluid precious stones don't emanate light legitimately. LCDs are accessible to show discretionary pictures (as in a broadly useful PC display) or fixed pictures which can be shown or covered up, for example, preset words, digits, and 7-section shows as in a computerized clock. They utilize a similar fundamental innovation, then again, actually discretionary pictures are comprised of countless little pixels, while different presentations have bigger components.





## Embedded C

An embedded system is an application that contains at least one programmable computer (typically in the form of a microcontroller, a microprocessor or digital signal processor chip) and which is used by individuals who are, in the main, unaware that the system is computer-based.

**OUTPUT**
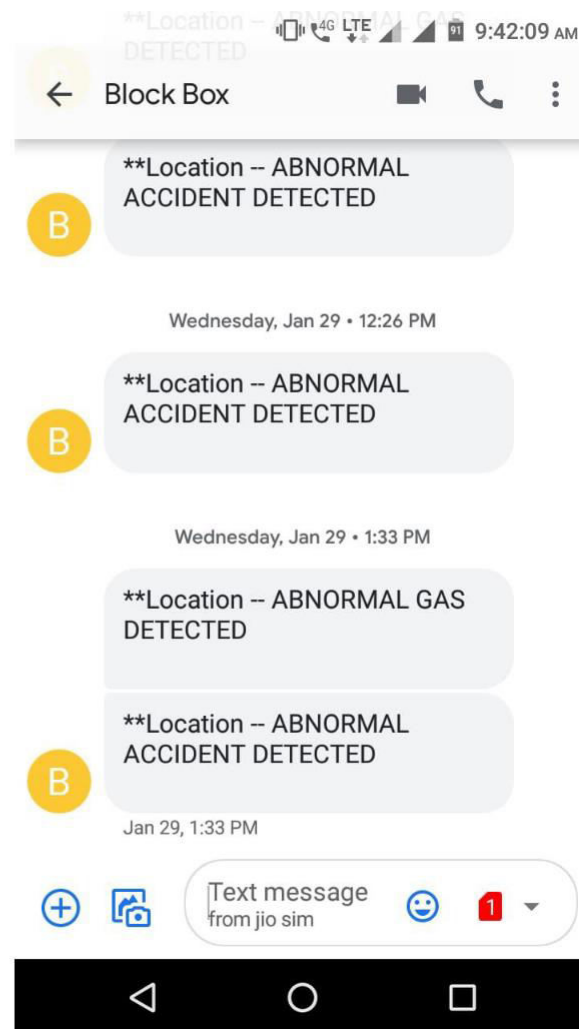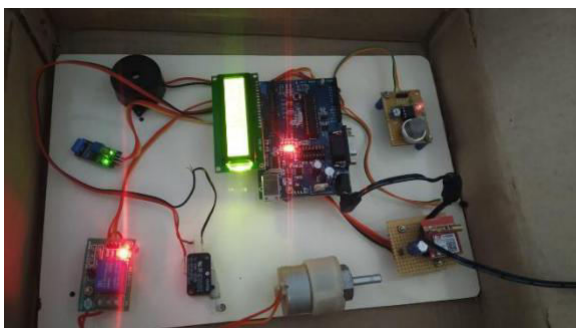


**CONCLUSION**

Generally speaking, such gadgets and frameworks can be the changing element in street security. Life is precious and we ought to do whatever conceivable to make streets more secure. WHO has just anticipated 1.9

million losses constantly 2020? Bangladesh is particularly in danger as the nation is being transformed by building more scaffolds, streets and better transportation systems and new zones rises to create. Bit by bit with help from both the vehicle proprietors and the Government aiding arrangement of such gadgets in vehicles, we can diminish the effect from the ever so concerning issue of street mishaps. Likewise, it will help spare lives, help in better information assortment and manufacture a foundation arrangement utilizing Emergency Crash Reporting Software to help the salvage administrations of the nation.

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