ACCIDENT DETECTION AND ALERT SYSTEM

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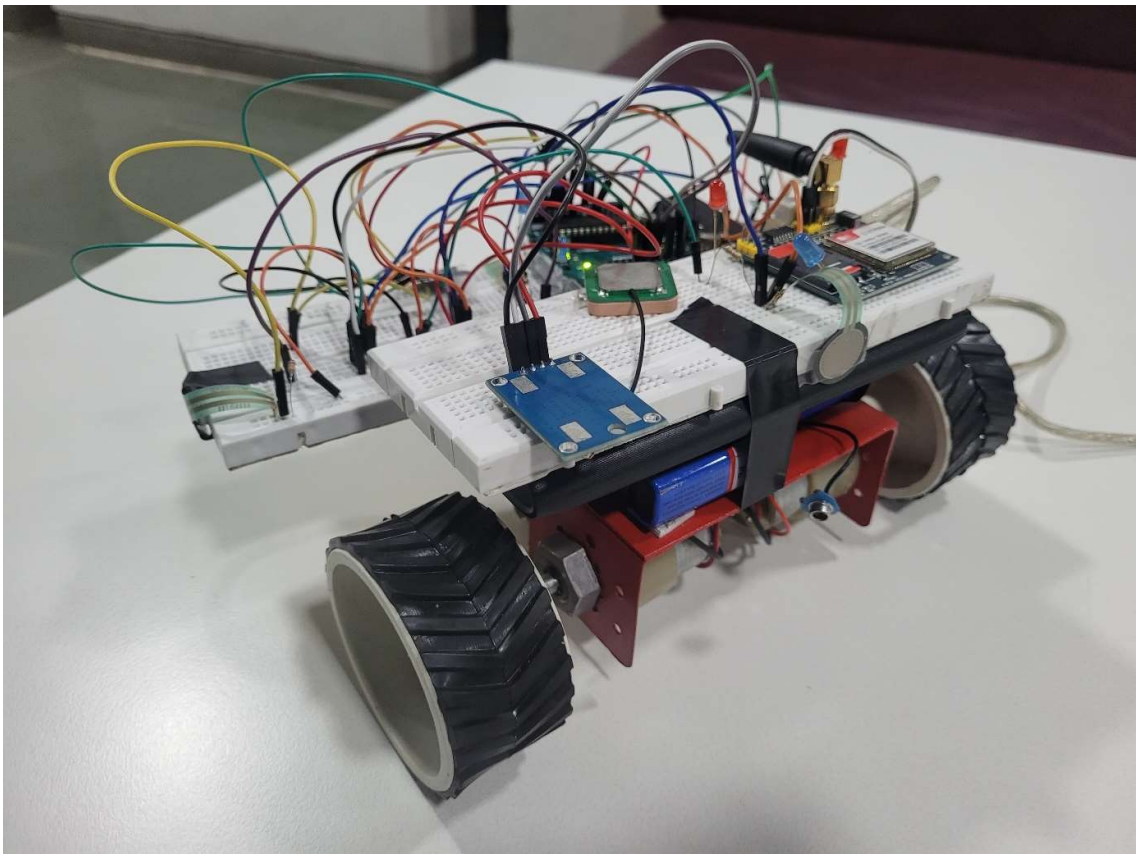

This project detects an accident, be it a vehicle collision or toppling of the vehicle. Collision is detected using the 4 FSRs, with each one being placed in all 4 directions. Toppling is detected by the ADXL345 accelerometer. Then, the device calls the driver using the SIM900A GSM Module. If the collision has occurred and it is not a false alarm, then after 30 seconds a message detailing the current location of the device to the Emergency contact which has been saved during the setup of the device. The location is obtained using the NEO-6M GPS Module.

In case of a false alarm, the driver responds to the call by sending a message to the phone number assigned to the SIM which is inserted into the GSM Module within 10 seconds. If the device detects no response within 10 seconds of the call, it considers that an accident has happened and sends the location to the Emergency contact.

In case the GSM Module receives a message from a number other than the driver's, the device treats it as no response from the driver and sends the location to the Emergency contact.

This device can be made portable using a Portable power source like a Power Bank.

The link for Video Demonstration is attached in a text file accompanying this project report.

Circuit Schematic