IOT BASED ACCIDENT DETECTION SYSTEM

CSC 6980 Topics in Computer Science – Security in IOT

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An IoT based system that would send alerts along with GPS co-ordinates to the nearest ambulance and police station. An option to override the alert system in case of a false trigger is also provided

1. WHY?

- The number of people using cars individually is greater than the number of people who use carpools or public transport systems.
- It has become difficult in providing help to isolated accidents for individuals because of lack of seeking help manually.

2. HOW?

The system is an IoT system that contains a pressure sensor, raspberry pi, GPS module, IR sensor, breadboard and connecting wires. The pressure sensors are attached on various positions of the car and connected to the raspberry pi. The pressure sensors are configured to a threshold range of pressure. In case of a false trigger, the driver is given a 2 min threshold to override the alert before it is sent for help.

3.WHAT?

1. An IoT system that can be installed to the cars.
2. A small mobile application that can be used to override the false triggers.

4. BUT?

1. Expensive – the number of sensors required to achieve the functionality may differ for various vehicles.
2. Success rate – Arrangement of the sensors for a vehicle might vary in the success rate of the project.
3. Real time testing: Cannot test the project real time because it will trigger a call to emergency services
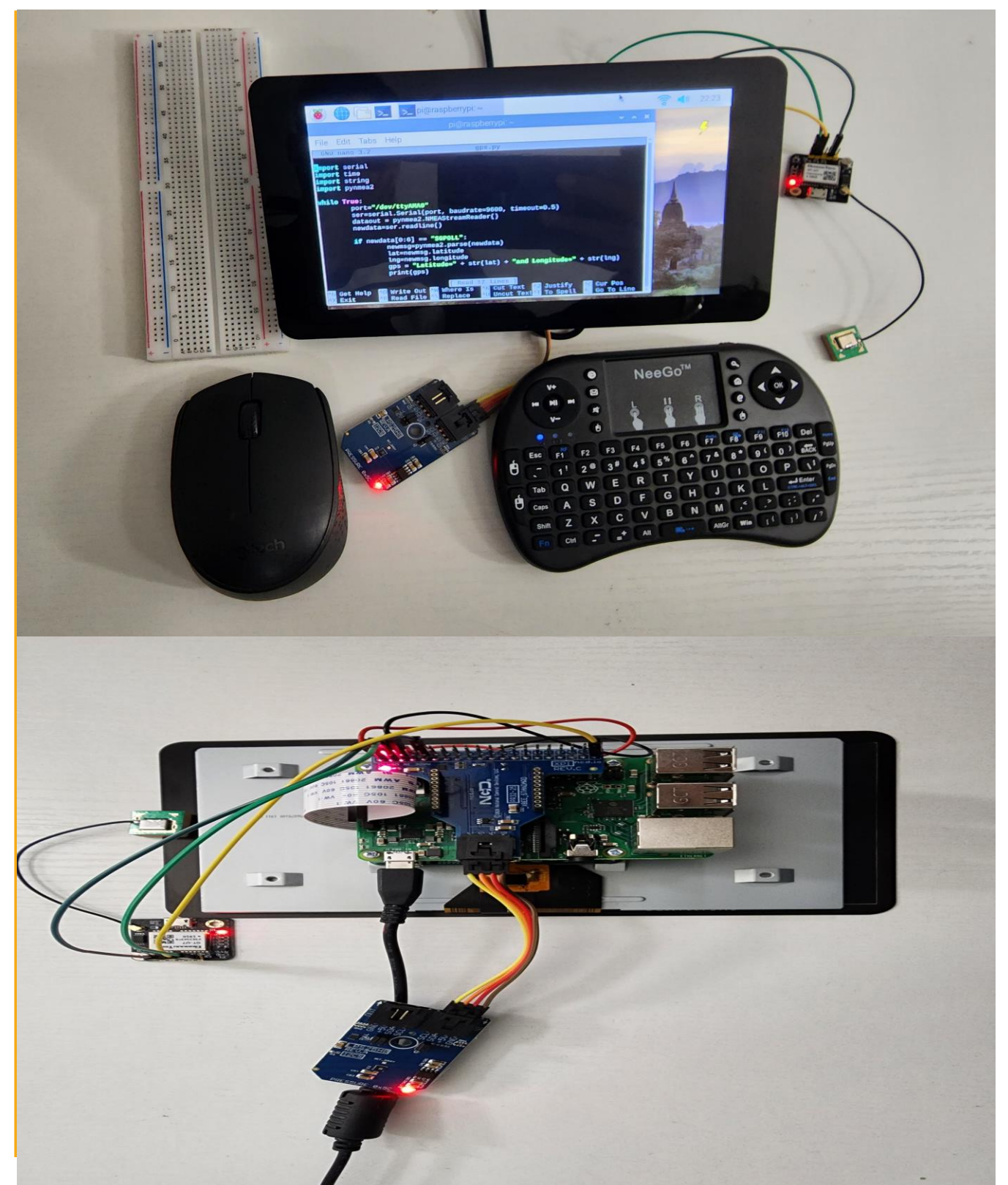
Deliverable 1: Raspberry pi connected with pressure sensor and GPS sensor

References

[1] https://www.who.int/news-room/fact-sheets/detail/road- traffic-injuries
[2]https://www.researchgate.net/publication/338447697_ACCIDENT_DETECTION_AND_REPORTINGSYSTEM_USING_IOT .