

THE ROBOTICS CLUB - SNIST

TEAM-06

INDUCTION'24

EMERGENCY SAFETY VEST

ABSTRACT

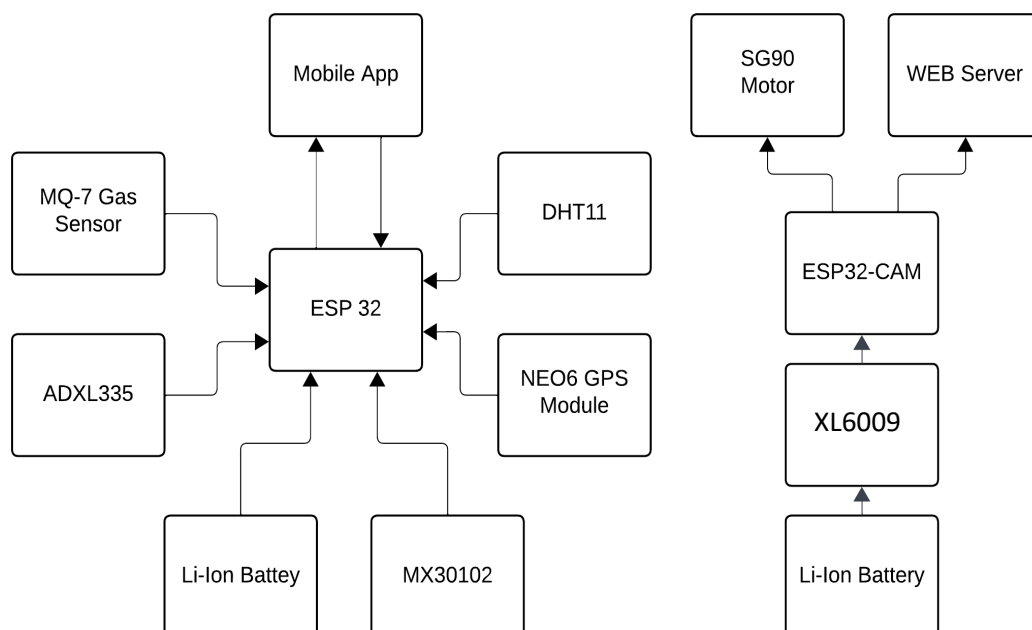
THE PROBLEM:

During emergency situations like natural disaster emergency personnel must worry about their safety as well as the person they are trying to aid or rescue. However, the current methods to monitor the Emergency responder are insufficient, we might not be able to know about the responder's location or vitals when they are busy helping people.

TEAM'S APPROACH TO SOLVE THE PROBLEM:

Emergency safety vest is a combination of vest and a helmet, it is used to check all vital parameters of their responder in real-time. It can measure heart rate, temperature, SpO2, the wearer's location and presence of harmful gas. We will be using MAX30102 sensor as it can monitor both heart rate as well as SpO2. These sensors are on a vest controlled by an ESP32 and this data is sent to Blynk App. If any serious changes occurs or the personnel is lost, we can track its location using the same. The Vest has a second part i.e. the helmet it will have a ESP-32 CAM module attached at top of it, It will also be able to rotate using SG90 servo motors. This is used to monitor the surrounding of the responder.

BLOCK DIAGRAM:



TEAM MEMBERS AND CLUB ID:

1. Kukkadapu Vamshi	23-CSE-18
2. Pranav Kumar	23-ECE-21
3. Kandlagunta Nagalakshmi Jahnavi	23-IOT-4
4. N.Meghana	23-AIML-3
5. Rohithvinayak	23-AIML-4
6. M. Naga Gopi Krishna	23-ECE-33
7. D Nithin	23-ECE-42
8. Ginka Varshith	23-IT-2
9. Dhanasri Ambadi	23-ECE-29
10. Bhargavi	23-IT-6
11. M.Dharani	23-ECE-47
12. J. Annop	23-IOT-6