

SAFETY HELMET WITH IOT









DESIGN BREIF

The design brief of this project is to develop a sensor product that can be placed on a helmet to ensure the safety of workers at high altitudes

Strengths

- Real-time monitoring of vital parameters for workers in hazardous work environments
- Fall detection using a vibration sensor
- Location tracking using latitude and longitude
- OLED display for immediate feedback
- Data can be sent to an IoT app for further analysis

Weaknesses

- The sensor product is limited to workers wearing helmets
- The use of GPS for altitude tracking may not be as accurate as other methods
- The cost of the product may be a barrier for some companies or workers

SWOT

Opportunities

- 1. There is a growing need for safety in hazardous work measures environments
- The product can be adapted for use in other industries, such as sports or military

Threats

- Competition from existing safety products in the market
- 2. Potential for technical issues or malfunctions with the sensors



AIM AND OBJECTIVES

This project is solving the problem of ensuring the safety of workers in hazardous work environments, such as those at high altitudes. The sensor product placed on the worker's helmet can monitor vital parameters such as heart rate, SPO2 levels, body temperature, and altitude, and can also detect falls using a vibration sensor. This allows for real-time monitoring of workers and can alert personnel in the event of an emergency.

BUDGET







·Making it as a businessapp.500\$



TARGETED AUDIENCE

- Workers who works on construction sites
- Labors
- Civil Engineers
- Anyone who works on height

Future work and how to improve the

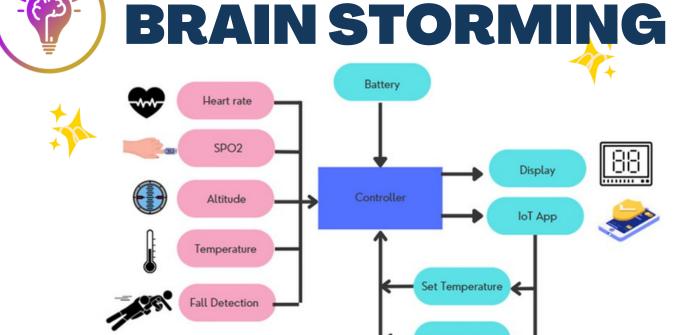
project:

1.Integration with AI.

2. Durability and battery life

3. User interface

4. Advanced Analytics HOW



BETTER TO UAE?

Overall, the sensor product for worker safety at high altitude can help achieve sustainability goals by improving worker safety and wellbeing, contributing to sustainable and responsible development, and advancing wearable technology through innovation. It can also benefit the UAE's construction industry by improving safety standards, increasing competitiveness, and positioning the country as an innovation hub for wearable technology.