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Women safety system using raspberry Pi with video and SMS alerting GSM,GPS & Shock system

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ABSTRACT :

- Security has emerged as a critical issue for women, children, and the elderly across various facets of life. Women encounter threats such as assaults and harassment, children are vulnerable to abduction, and senior citizens frequently face challenges like theft. In response to these pressing concerns, this study introduces a smart wearable device system utilizing Raspberry Pi 3 to bolster safety and security. The system combines a security feature with an alert mechanism, promptly notifying individuals in proximity through a buzzer alarm when activated. Furthermore, it incorporates a Support Vector Machine (SVM)-based model for surveillance, offering an effective strategy to address diverse societal challenges.

The technology leverages the Global Positioning System (GPS) for user location tracking and the Global System for Mobile Communication (GSM) to dispatch alerts via SMS to emergency contacts and law enforcement agencies. Additionally, it utilizes General Packet Radio Service (GPRS) for data transmission. When the user activates the panic button on the wearable device, a USB web camera captures images of the assailant and the surrounding environment. These images, along with the user's location, are then emailed to emergency contacts.

INTRODUCTION :

In recent years, women’s are continuously facing various threats such as abusing and brutal problems and being treated as victims. We are in need to ensure the safety of women. The ideal system was a portable device . This project is concentrating on the security system of the women’s by means of providing a secured environment to them. The objective of this project is to create a portable safety device for women's. We are mainly creating a ideal model for the device that can be easy to carry anywhere. Safety of women in world has become a major issue in the world . Nowadays women’s are undergoing various immoral activities.

The devices which is used for the safety of twill be enhanced as mobile apps for their convenience. Our project gives solution to one such issue. Alerts family and friends by sending emergency message and captures the

images/video of the attacker to maintain proof for legal actions . It consists of Pushbutton, when it is pressed, the device will get activated automatically within a fraction of seconds. Immediately the location of the injured person will be tracked and messages will be sent to an emergency contact.

DESIGN METHODOLOGY :

The suggested smart floor cleaner's block diagram is displayed in the above figure. The current legal framework is not robust enough to prevent crimes against women. The main objectives of the system are accurate tracking, timely processes, reasonable development costs, and acceptable quality. This study offered a way for a woman to alert the appropriate authorities right away if she feels threatened. The recommended approach measures a woman's pulse rate with a device. If it is high, our gadget and smartphone notify the closest police station and family member of the woman's location. and take a picture of the victim, sending copies to each of However, the victim and the contact person must both own. The recommended approach measures a woman's pulse rate with a device. If it is high, our gadget and smartphone notify the closest police station and family member of the woman's location. and take a picture of the victim, sending copies to each of However, the victim and the contact person must both own .This study offered a way for a woman to alert the appropriate authorities right away if she feels threatened.

BLOCK DIAGRAM :

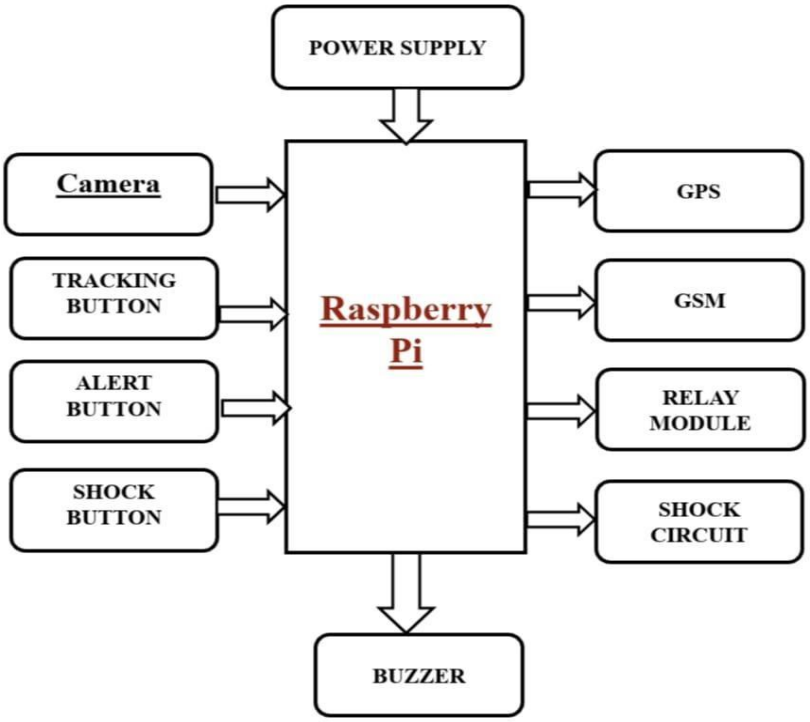

Figure No - 1

FLOW CHART:

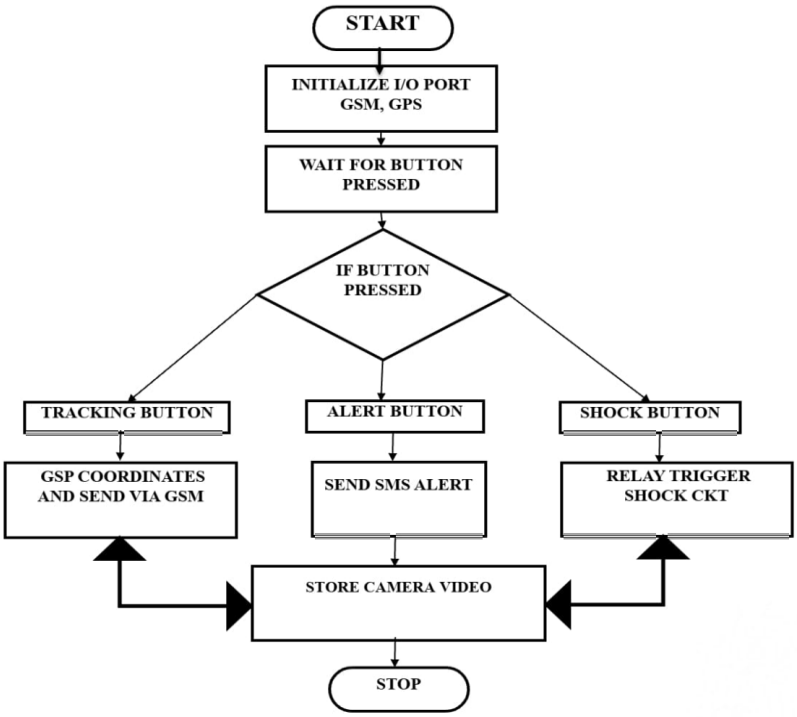

Figure No.2

CIRCUIT DIAGRAM :

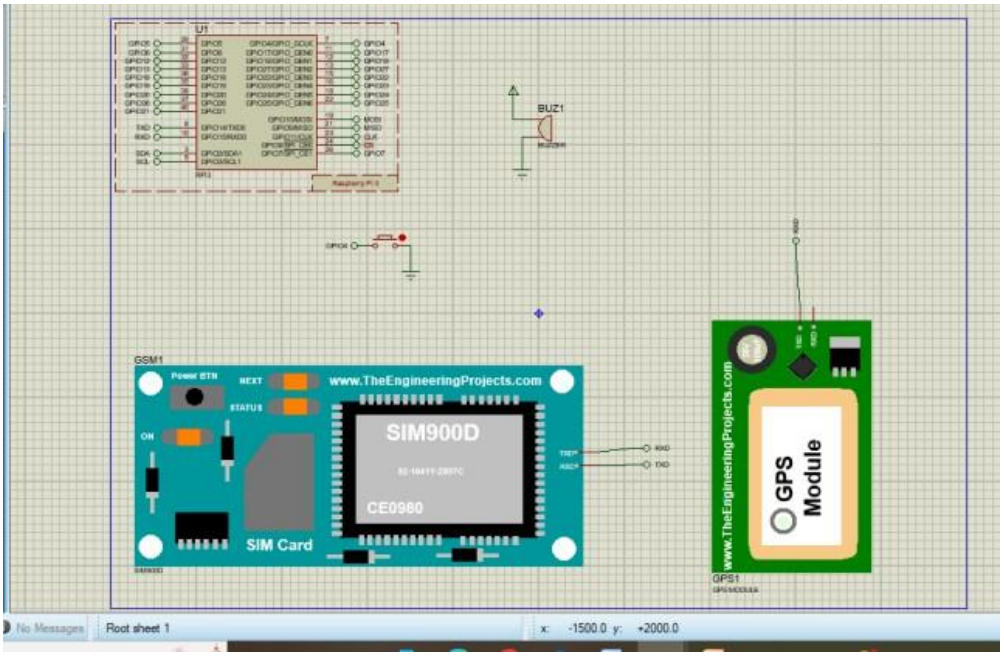

Figure No 3

CONCLUSION :

According to the study, because ultrasonic sensors have an echo and a trigger pin, they are more useful for detecting objects. Signals are sent by the trigger pin and received by the echo pin.

If an object is found, the signals will be able to show it, and a formula in the code will allow one to estimate the object's distance .As a result, using ultrasonic sensors rather than infrared sensors will yield better output. It will be simpler

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