A SMART SECURITY COMPANION FOR WOMEN

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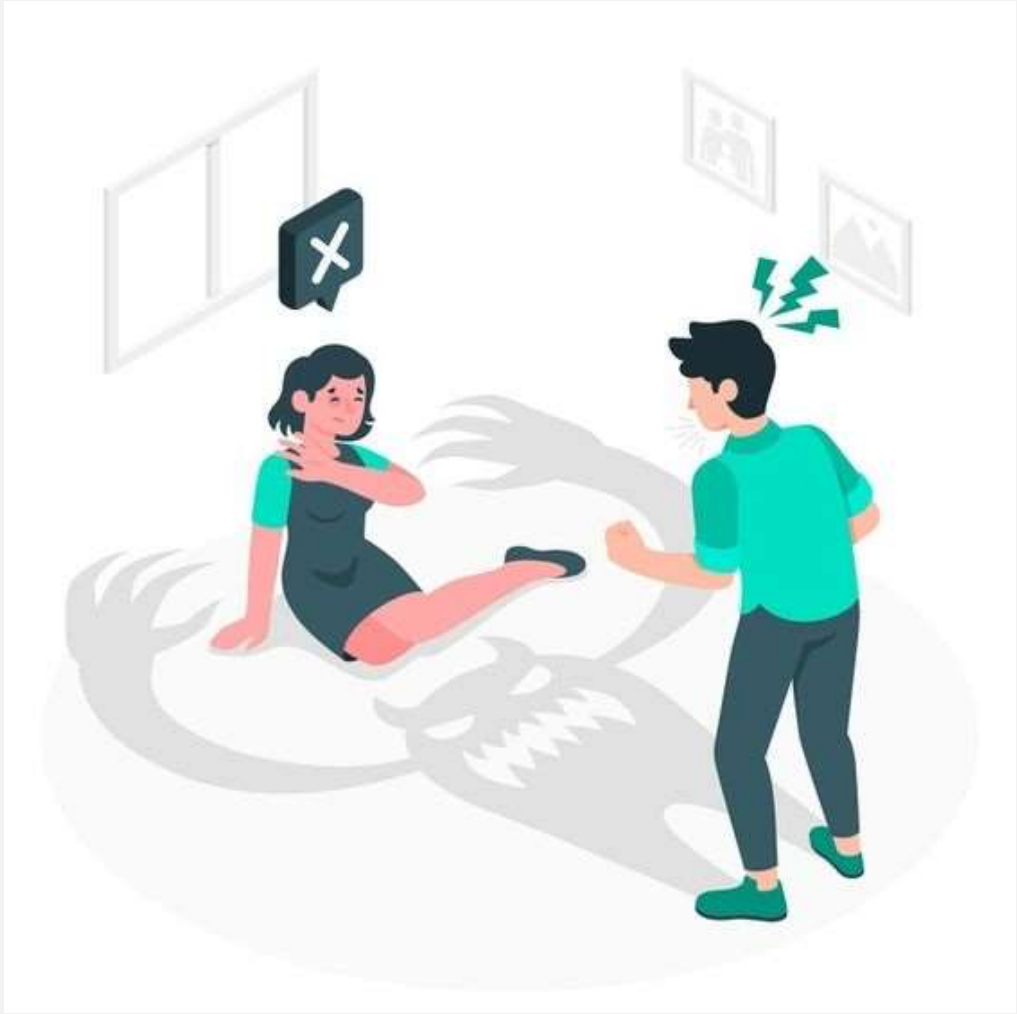


INTRODUCTION

- Since we (humans) can't respond aptly in critical situations, the need for a device which automatically senses and rescues the victim is the venture of our idea .
- We propose to have a device which is the integration of multiple devices, hardware comprises of a wearable “Smart band” which continuously communicates with Smart phone that has access to the internet.
- The application is programmed and loaded with all the required data. This generates a signal which is transmitted to the smart phone.

PROBLEM STATEMENT

The proposed System is to develop a comprehensive and innovative smart companion system.

- Safety Concerns
- Privacy Risks
- Inadequate Existing Solutions
- Lack of Empowerment

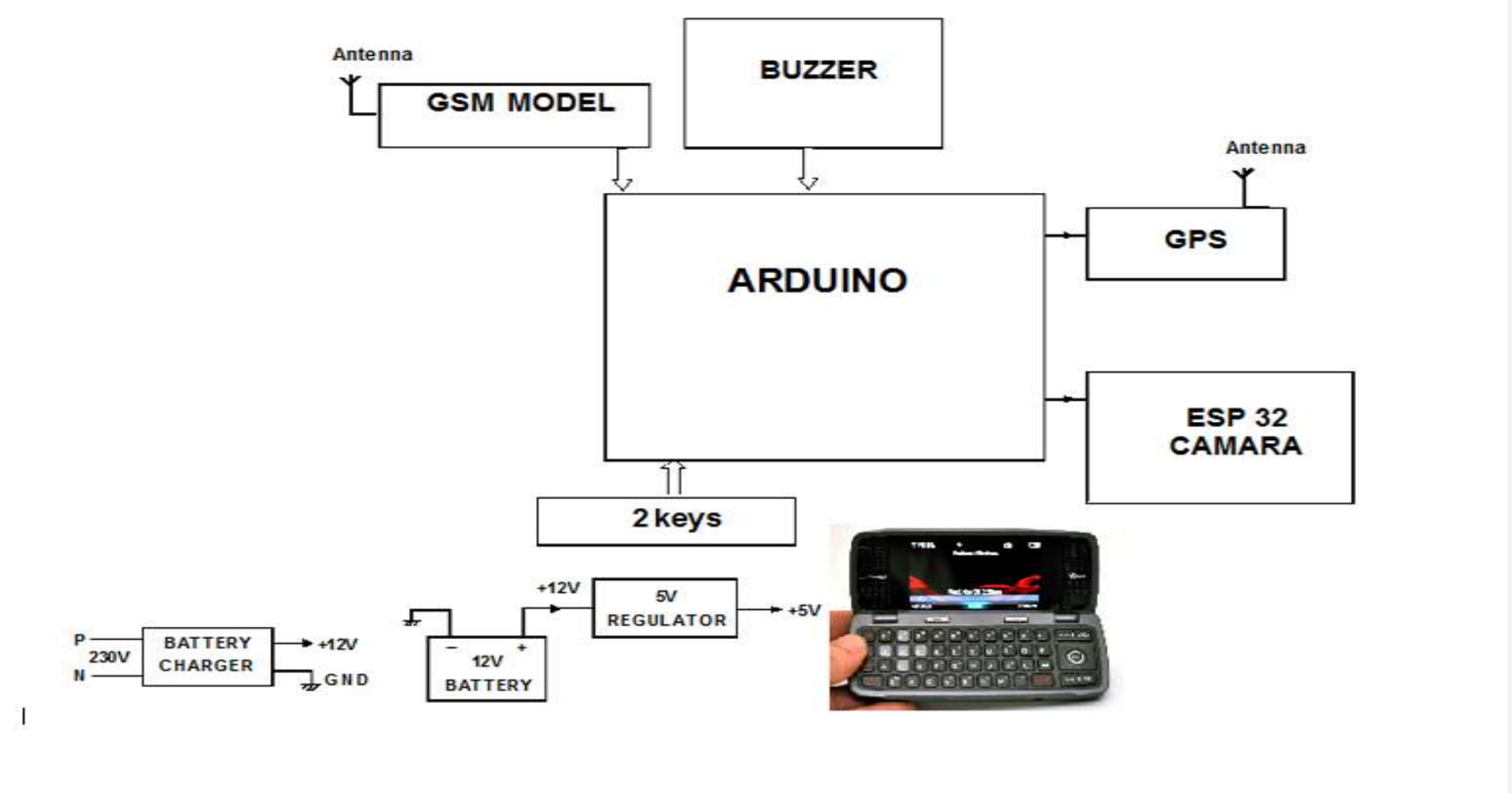
OBJECTIVES

- Panic Button Functionality
- GPS Tracking Integration
- Emergency Contact Connectivity
- Discrete Design
- Audio and Video Recording Features

COMPONENTS

- ESP 32 Camera
- GSM module nano
- Arduino nano
- 12 volts Battery
- Voltage regulator
- Arduino uno
- Battery Charger
- Key
- Buzzer

BLOCK DIAGRAM



IMPLEMENTATION

• The key can be used to arm or disarm the system. When armed, the system is activated to detect any intrusions.

• The system continuously monitors sensors such as motion sensors depending on the specific security requirements.

• If any sensor is triggered indicating a security breach, the Arduino Nano activates the ESP32 Camera to capture images or videos of the intruder.

• Simultaneously, it triggers the GSM Module Nano to send SMS alerts or make calls to predefined numbers alerting the user or authorities about the security breach.

RESULTS

Fig.1: Capturing image using ESP32 Camera

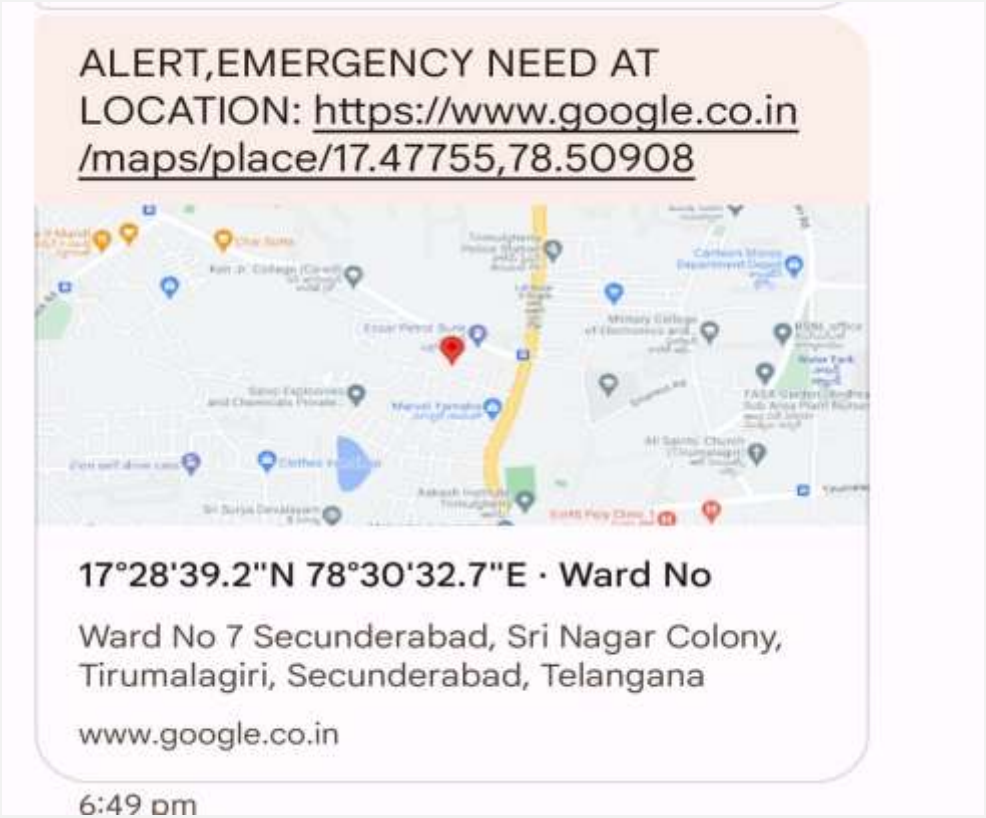


Fig.2 : Tracking Location using GPS

APPLICATIONS

- Personal Safety
- Community Support
- Night-time Activities
- Domestic Violence
- Virtual Guardian
- Travel

ADVANTAGES AND DISADVANTAGES

ADVANTAGES

- Enhanced Safety
- Immediate Alerts
- Location Tracking
- Evidence Collection
- Discrete Design
- Peace of Mind

DISADVANTAGES

- Battery Life
- False Alarms
- Technical Limitations

CONCLUSION

The "Smart Security Companion" combines a tracking unit with Google Maps and SMS to provide real-time location updates for personal safety. Future improvements include using compact Arduino modules for discreet wearability and enhancing battery life. Google Maps offers precise location data, easily understood through visuals, while SMS ensures communication even without internet access. This innovation offers peace of mind during emergencies, promising effective solutions to personal security concerns with ongoing advancements.

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THANK YOU