

## THE WOMEN SAFETY BASED ON GPS CONTROL

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**Abstract:** Women safety is an very important in life. Women safety always issue in these modern technology with so much technology also in present days. Women are unable to travelling alone in present days and deserted places. the main purpose of this this project is to help women whenever they are in emergency. Whenever they are in danger. the the women possessing this device will press the SOS button if they are in danger. An SMS will sent to the police department through latitudes and longitudes coordinates will sent to the preferred mobile numbers informing to the police department and police will go the danger location of particular women and they help to the women.

**Keywords:** GPS,Women Safety,GSM Control

### I. INTRODUCTION

Women Safety Is Very Important In Life.Condition Of Woman In India Has Many Changes In Last Fewn Years.india many women looking for safety from social issues like sexual assault. women did not know how to protect themselves from the sexual assault. And unable to find themselves from the police department .

So we have proposed a method that helps for women in present and future it will implement with most technology. So we proposed a stun gun technology. Whenever the panic key is pressed the boost circuit delivers a very strong shock pulse to the stranger at the same time by using GPS. The live location of woman will share to the police department to the registered numbers.by knowing the police they will come to your location and will help you.

### II. COMPONENTS

TO prepare this gadget. Hardware and software are required. The list of components are required in the below given

**Hardware:**

- 1.SIM900 MODERN
- 2.ARDUNIO UNO
3. NEO6M GPS MODULE

- 4.ADAPTER
- 5.RELAY
- 6.BUTTON
- 7.HIGH VOLTAGE
- 8.BUZZER

**Software:**

After Completion Of The Hardware Connections, The Arduino Nano is Programmed

### III. METHODOLOGY

AS shown in figure first of all whenever switch is pressed by victim it generates a signal and this signal is sent to GSM send current location to police and family members through GPS. And the another switch that we use in it relay which is used for activating the stnngun circuit.

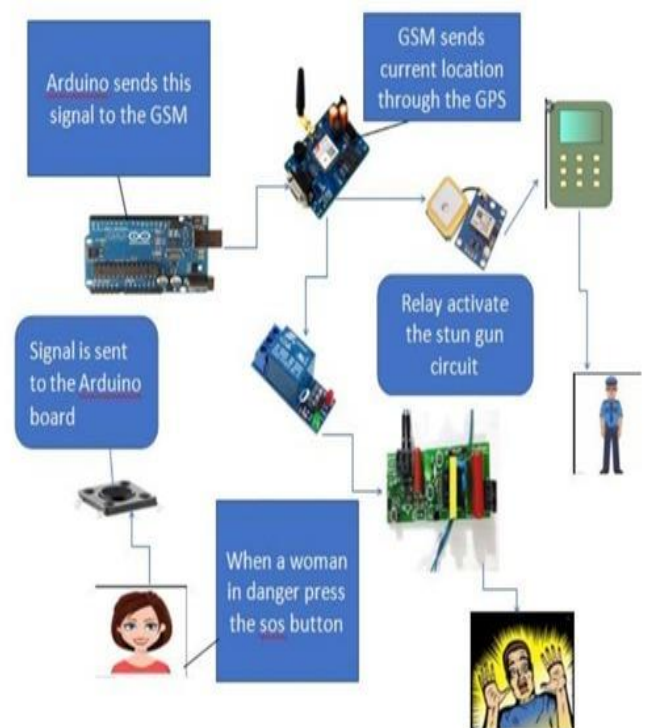


Figure 1:Structure of the device

**VI. SYSTEM DESIGN**

The Circuit Comprises Of Microcontroller (Arduino),Gsm/Gps Module,Sos Button,Receiver And Transmitter.At the point when the trigger is squeezed,the gadget will get initiated consequently, quickly the area of the casualty will be followed with assistance of GPS and crisis message will be sent to contacts and one to police control room at regular intervals with upgraded area. The shouting caution unit will be initiated and will convey sirens to get out for help. The framework is additionally fit to produce an electric stun to hurt the assailant which may help the casualty to get away,connectivity as shown in figure.

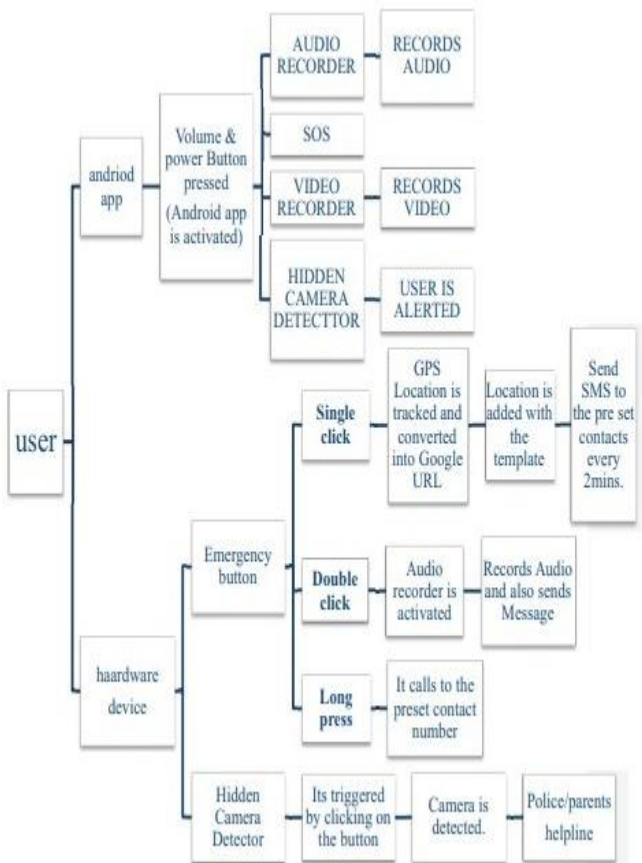


Figure 2: System Architecture

System Designing Is Split Into Two Sections Namely Transmitter Section And Receiver Section As Shown In Below Diagrams Of Transmitter And Receiver Sections. When the user will turn on the device, all modules will be launched simultaneously. The band will check whether the

emergency switch has been pressed twice within five seconds or not. If the switch is not pressed or pressed for a single time, the band will not take any further action. But if the band user is in danger and presses the emergency switch on her band twice within five seconds, an emergency SMS will be sent immediately to the nearest police box, volunteers and her family. The location update will be done by the GSM module. We divided each road into several branches where one kilometer was taken for one branch. It is created with the values of latitude and longitude. Police boxes and some volunteers' mobile number of each branch will be provided to the system in advance. When the emergency switch will be pressed, the emergency message will be sent to the police and volunteers of that zone in which the user will be in.

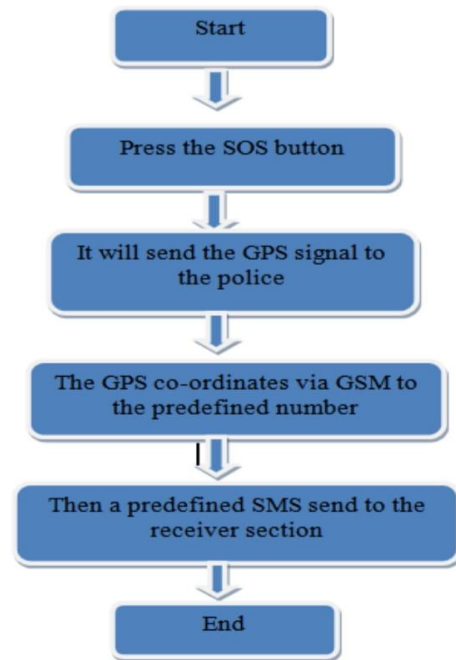


Figure 3: Transmitter section

The user can trigger the app in two ways. One is through the emergency switch in the app. Another one is the emergency button with Smart band, which transmits signals with the app using Bluetooth support. When the emergency switch is pressed, the system will see if the GPS is ON. If not, the app will turn on GPS location service. The system will be informed about the current location of victim through Google Geolocation Service. The app will then send a notification via the Firebase Notification Service to the closest active user of the victim. As a result, the volunteers will reach out to help her and the attacker will not have enough time to harm the victim.

### V. RESULTS AND DISCUSSION

A Model With Neo6m Gps Module,Gsm Sim300,Stun Gun And Buzzer Controlled By Arduino Microcontroller Acts As The Useful Gadget For Women Safety, The Location Information And Message " I Am In Danger" Is Received By The Emergency Contactants .Another Sos Button Using For Stun Gun Which Is Used For Activating The High Voltage Current Through Which An Individual Can Defend Herself.

The limitation of the device in operating voltage is 3.4-4.5v more then or less this it can be operated. These algorithms cannot guarantee 100% security. Sometimes GPS may fail due to certain reasons and that case you need to carry a backup map and direction.

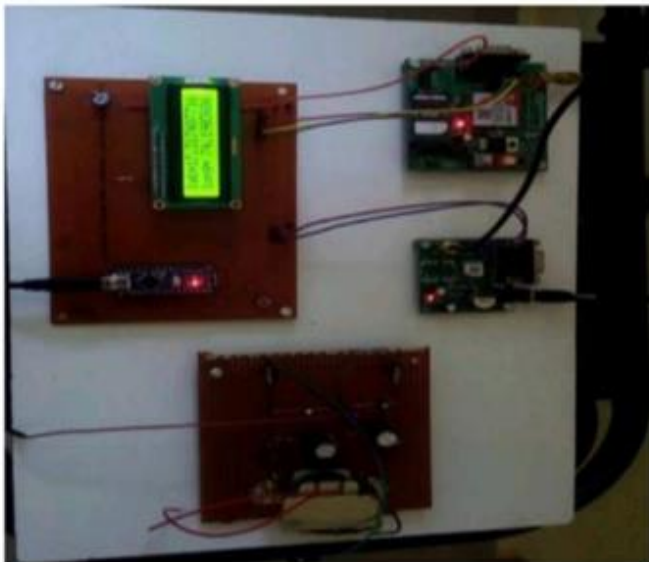


Figure 4:Hardware Setup System



Figure 5:Tracking Location

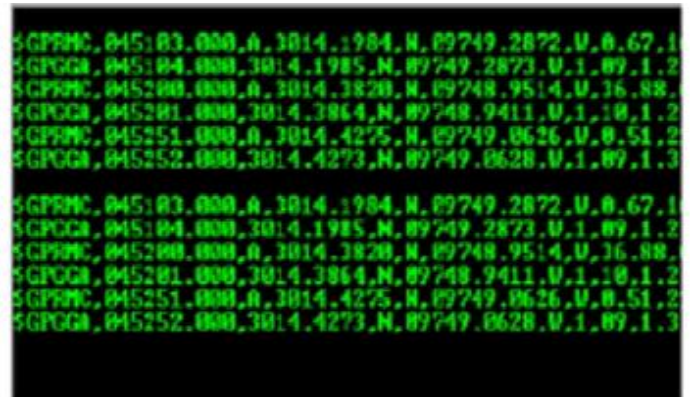


Figure 6:GPS Tracking the Current Location

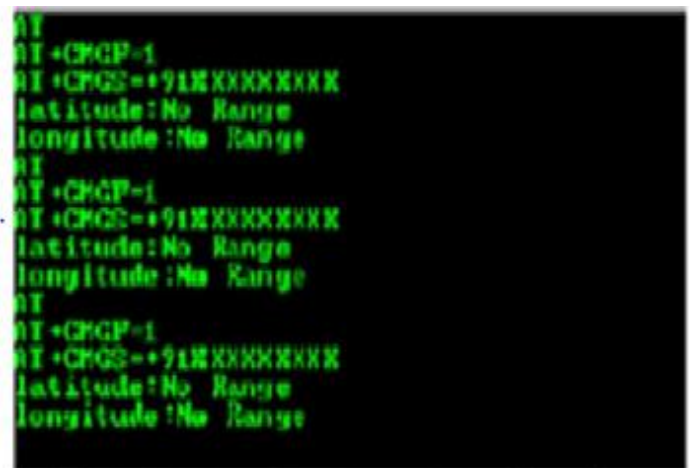


Figure 7:SMS Send to the registered numbers

## VI. CONCLUSION

Maximum Women's safety is the utmost concern of our project. So, we designed our project with few unique features. One of the key features is that our system can work in both online and offline mode. Police and volunteers who are positioned near the user's location in both modes, they will assist the user. On the other hand, the most important and unique feature of our app is that when the user is in trouble, she will get help by fixed volunteers and movable volunteers who are closest to the user. The app user will get help much faster because this app does the job of finding volunteers at its own discretion. We will add a camera module to the device which will have video and audio recording options. The main benefit of using this safety system is that women can feel confident when they go outside as they can quickly get support through the system when they are in danger. The device we invented for Women's Safety is made up of two separate tools. One is a smart band and the other is the CWS app. The two tools are able to provide women's safety independently. But it is expected that maximum safety will be ensured when using the full system together. We have encountered some issues in designing the Smart Band. We are working on it and hoping to fix the bug very quickly. Finally, it can be said that this device will serve as a protection charm for women.

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