

Project Title:

Bracemate (A Novel women safety enhancement device with automated distress time video recording)

Problem Identification Statement:

In the present time, there is a serious security threat for women in society. The majority of women do not feel safe alone on the streets, at the workplace, in markets, at night time and even at home. Escalating crimes are taking place against women all over the country. Crimes such as sexual assault, eve-teasing, harassment, rape, etc are frequently being committed despite the law of the country.

There is an urgent need for the protection of women against these heinous crimes. Safety is our number one priority.

To deal with this situation, it is critical to inform and update our family members, police and acquaintances about our current location so that they could rescue us before any potential crime could take place.

Solution:

Our bracemate (She Bracelet) is a smart gadget that sends SMS with exact location of the person in distress to a pre registered emergency contact and the nearest police station, with just at a press of a button. An inbuilt voice recorder & camera are also included in the device that gets activated in distress to take audio and video of the surroundings.

The user will have the below advantages:

1. Live location tracker: This will send the live location to the cops and registered mobile numbers in the form of an SMS.
2. A camera: This will record the incident.
3. Calling option: This alerts the cops and the registered numbers whenever required.

Requirement Specifications:**General Specifications:**

1. Bracemate has a button that when pressed sends SMS of exact location (via Google Maps link) of the person in distress to registered emergency contact(family members or acquaintances) and the nearest police station.
2. Once the button is pressed, an inbuilt camera with voice recorder gets activated to records the surrounding of the victim.

Technical Specifications:

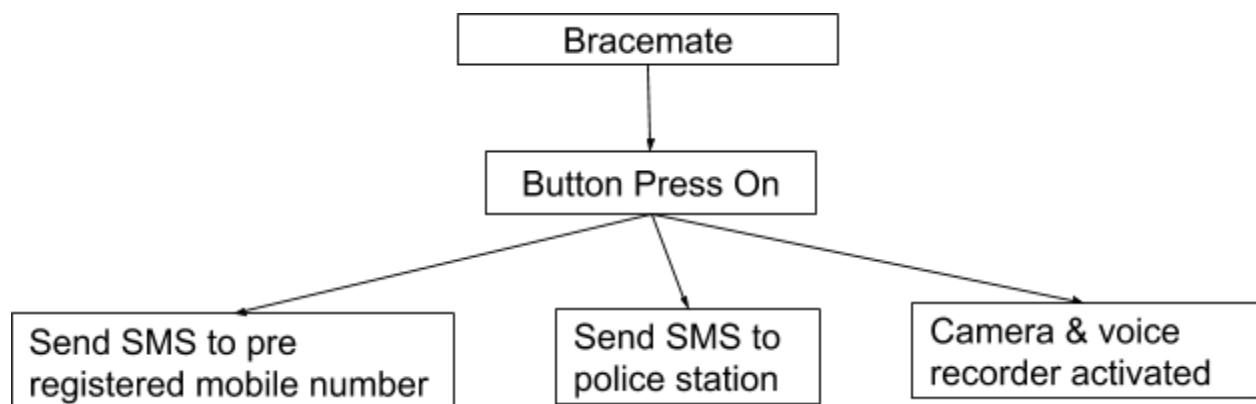
Hardware:

- 1) Arduino Nano V3.0
- 2) GPS module Ublox Neo-6M
- 3) GSM Sim800L module
- 4) Voice recorder and playback
- 5) Camera(mini)

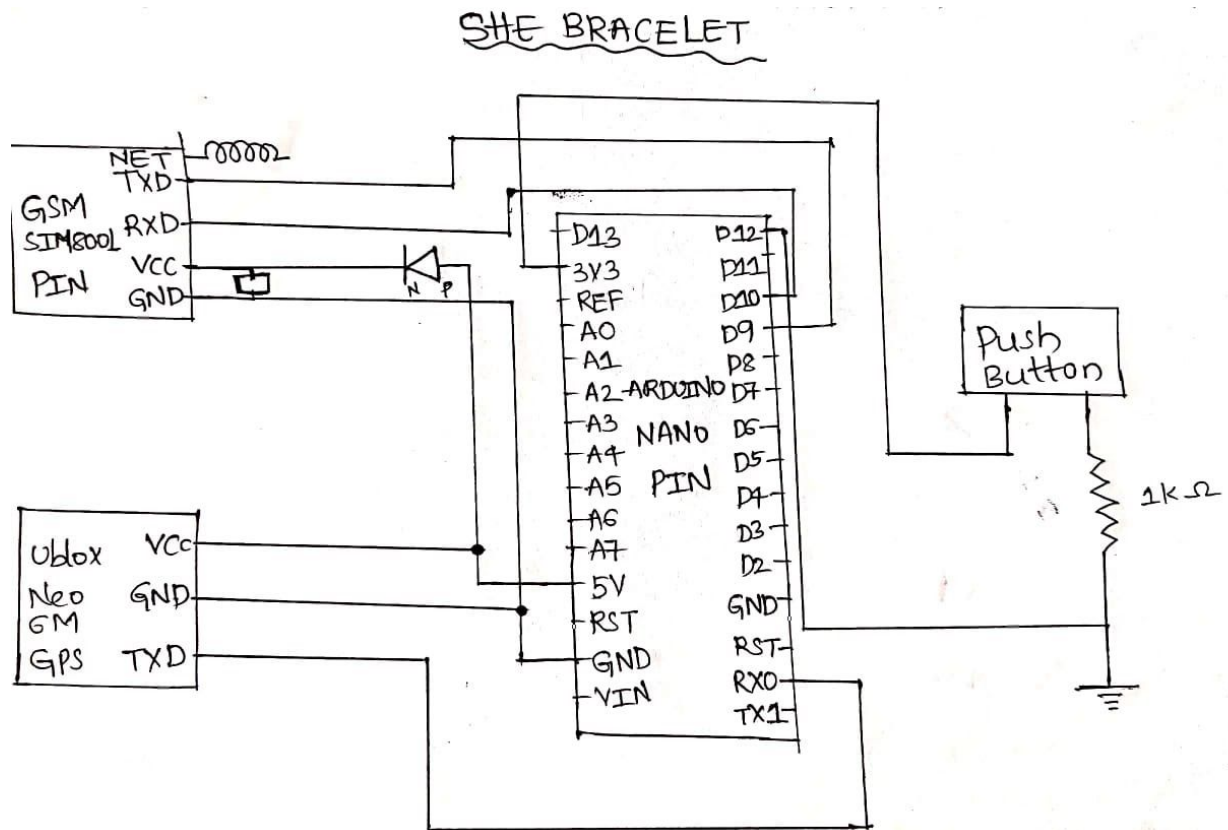
Software:

- 1) Arduino IDE
- 2) Proteus 8.0 (For simulation purposes)

Functional Decomposition & Conceptual Design:



Technical Design:



Prototype 1:

