Smart Gadget For Women Safety

Kajal Sinha[1], Kumari C Rathod[2], Sudhanshu Ranjan[3] , Mr. Kiran Kumar T[4]

[1]Student,Telecommunication Engineering ,Bangalore
[2] Student, Telecommunication Engineering ,Bangalore
[3] Student, Telecommunication Engineering ,Bangalore
[4]Assistant Professor, Dept. of Telecommunication Engineering, Dayananda Sagar college of Engineering,
Bangalore, Karnataka, India

---***---

Abstract - *In today's world women's are less secure, they are facing more number of situations like kidnapping, rape case, & abuse. Because of this reasons women's can't step out of their house. The prime question in every Woman's mind, taking into account the ever rising increase of issues on women harassment in recent past, is only about her safety and security. The only thought haunting every Woman's is when they will be able to move freely on the streets even in odd hours without worrying about their security. When such incident happens with women's they will not feel insecure or helpless if they have some kind of device with them. With the help of these devices girls & women's can stay out without any fear at any time. This system can be used at places like bus stops, railway stations, footpaths, shopping malls, markets, etc. Our project focuses on Women's Safety Gadget which is helpful for women's. Personal safety is one of the most important concerns for women, as crime against women has not decreased.*

Key Words: SIM, Women Safety, Wearable band, Arduino nano, Smart gadget.

1.INTRODUCTION

Every single day women and young girls from all walks of life are being assaulted, molested, and raped. The streets, conveyance, public spaces especially became the territory of the hunters'. due to these reasons women can't exit of their house. the sole thought haunting in every women`s mind is once they are going to be ready to move freely on the streets even in odd hours without fear about their security. In critical situations the ladies won't feel insecure or helpless if they need some quite guard with them. Here we introduce a wearable device which normally works as a standard band. It also incorporates a SIM unit which will help the victim to speak with their family or police at the primary sign of trouble.

2.EXISTING METHOD

In the existing system there's no monitoring system for women, it should create many problems for them and therefore the no safety mechanism to guard the women from the misbehaviour activities. additionally, within the existing

system there's no alert mechanism for the girl's safety, it should be done by manually only.

2.1 Disadvantages

 • All the prevailing systems must be connected to the GPRS service to figure properly, hence can't be used during emergency if there's no internet connectivity

 • There's no hidden camera detector which is portable to make sure our privacy

 • Monitoring was tedious.

. • Mischance in arriving rate.

3. PERPOSED METHOD

Figure 3.1 represents the circuit diagram of the device which we proposed. during this system, an GPS system is employed to seek out the situation and send the situation to the group of individuals stored within the phone, SOS Message, Track your phone.

Figure -3.1: Circuit Diagram
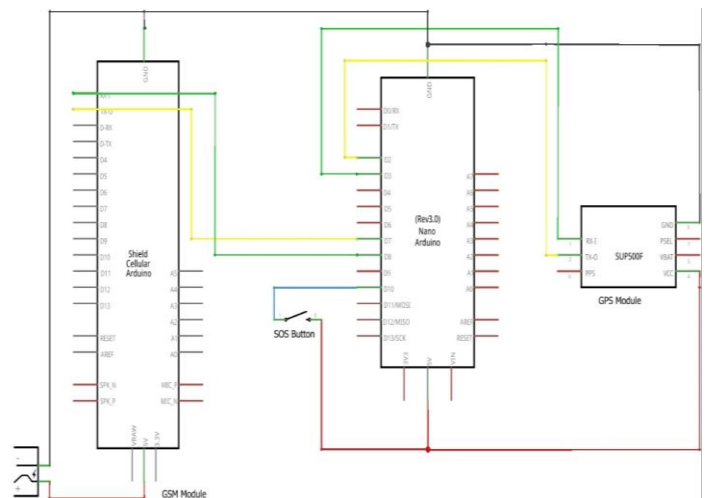
We used a way of clicking the quantity button, if the button is pressed on time then message alert and it calls to police/selected number. Here the trigger are going to be

button press which can activate the GSM module to send the situation which is tracked by GPS to the chosen phone numbers.

3.1 HARDWARE

3.1.2.Arduino nano

The Arduino nano may be a small, complete, and breadboard friendly board supported the ATmega328 (Arduino nano 3.0) or ATmega168 (Arduino nano 2.x). it's more or less an equivalent functionality of the Arduino Duemilanove, but during a different package. It lacks only a DC power jack, and works with a Mini-B USB cable rather than a typical one.

3.1.2.Push Button

Push may be a simply Switch mechanism for controlling some process. Button is usually made out of hard material, usually plastic or metal. The surface is typically flat or shaped to accommodate the human finger or hand, so on be easily pushed. Button is most frequently biased switch, although many un- biased buttons still required a spring to return to their un pushed state. Different people use different terms for the pushing of the button like Press, Depress, Mash and Punch.

3.1.3.GPS Receiver

GPS, fully Global Positioning System, space-based radio-navigation system that broadcasts highly accurate navigation pulses to users on or near the world. within the United States' Navstar GPS, 24 main satellites in 6 orbits circle the world every 12 hours. additionally, Russia maintains a constellation called GLONASS (Global Navigation Satellite System).

3.1.4. GSM Model

A GSM module or a GPRS module may be a chip OR circuit which will be wont to establish communication between a mobile device or a computing machine and a GSM or GPRS system. The modem (modulator-demodulator) may be a critical part here. These modules contains a GSM module or GPRS modem powered by a power supply circuit and communication interfaces (like RS-232, USB 2.0, and others) for computer. A GSM modem are often a fanatical modem device with a serial, USB or Bluetooth connection, or it are often a mobile that gives GSM modem capabilities.
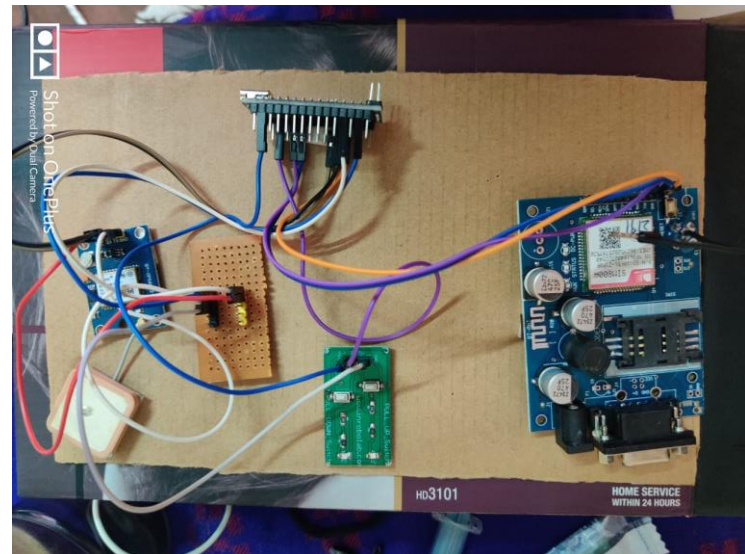

Figure -3.2: Hardware

3.2.SOFTWARE

3.2.1.Arduino IDE

The Arduino Integrated Development Environment (IDE) is a cross-platform application (for Windows, macOS, Linux) that's written in functions from C and C++. it's wont to write and upload programs to Arduino compatible boards, but also, with the assistance of 3rd party cores, other vendor development boards.

The source code for the IDE is released under the version 2. The Arduino IDE supports the languages C and C++ using special rules of code structuring. The Arduino IDE supplies a software library from the Wiring project, which provides many common input and output procedures.

3.3.WORKING

A GPS receiver calculates its position by precisely timing the signals sent by the GPS satellites high above the world. Each satellite continually transmits messages containing the time the message was sent, precise orbital information (the ephemeris – orbit path and speed of every satellite), and therefore the general system health, current date and time of all GPS satellites (the almanac). The receiver measures the transit time of every message and computes the space to every satellite. A sort of triangulation is employed to mix these distances with the situation of the satellites to work out the receiver's location. The position is displayed, perhaps with a moving map display or latitude and longitude; elevation information could also be included. Many GPS units also show information like direction and speed, calculated from position changes.

4.RESULTS

4.1.Software

Figure-4 represents the "latitude and longitude" location are going to be sent with an alert message to the pre-set contacts. Double click, alert message are going to be sent to the pre-set contacts. Long press will send emergency call with alert message to the pre-set contacts.

4.2. Hardware

Figure 4 represents the "latitude and longitude", which can be sent from device with alert message to the pre-set contacts, and alert message are going to be sent to the pre-set contacts. Long press will send emergency call with alert message to the pre-set contact Overall both can act separately and also acts in synchronized way.
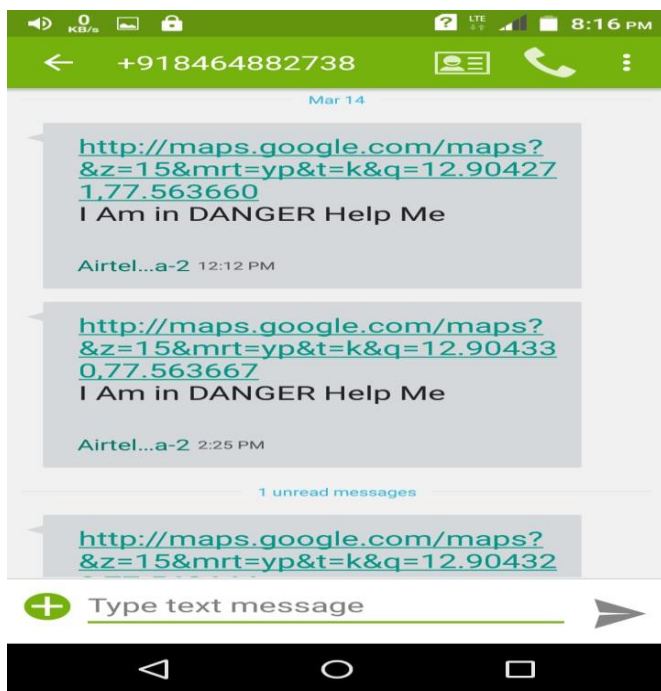

Figure-4 Results

5. CONCLUSIONS

Our primary goal of this project is to make sure every woman in our society to feel safe and secured. consistent with the survey in India 53% of working women aren't feeling Figure 5. Output – message alert from the device when triggered. Women guard and Application-FEMME Vol 9 (10) | March 2016 | www.indjst.org Indian Journal of Science and Technology 6 Figure 6. Storing numbers. Figure 6. Storing numbers. Figure 7. Output message sent from hardware. safe - Women is functioning in night shift (Bangalore-56%, Chennai28%, Hyderabad-35%, Mumbai-

26%). In Overall 86%of working women in India, women facing hurdles are high in Delhi, Mumbai, Hyderabad, Kolkata and Pune comparatively to other places. FEMME can play a serious role by providing women a secure environment altogether situations for instance (detecting hidden camera, physical threatened, harassed, robbery, stalked). Implementing real time application and a tool, we will solve the issues to an extent. With further research and innovation, this project is employed as a little wearable device like watch, pendent etc.

REFERENCES

[1] X. Shu, Z. Du, and R. Chen, Research on mobile location service design based on Android, 5th International Conference on Wireless Communications, Networking and Mobile Computing2009, 24-26 Sept 2009, pp. 1-4.

[2] Kroll, M. W. "Crafting the perfect shock." Spectrum, IEEE 44.12 (2007): 27-31.

[3] Prajakta N Pande, Prof. Amit Welekar, "Android app for location tracking and conferencing", ICTT- vol 24, no 2, June 2015.

[4] Vivek & P.N, WISE, "Design and implementation of wristbands for safety measures in times of emergency", 2013 .