

# STREE ATMANIRBHARTA JACKET FOR WOMEN SAFETY

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## Abstract:

The only study hanging every girl is when they will be suitable to move freely on the thoroughfares indeed in odd hours without fussing about their security. This design suggests a new technology to cover women. This design focuses on a security for women so that they will no way feel helpless. The system consists of modules similar as GSM, GPS, shock circuit, buzzer, flex detector, Arduino Today there's numerous cases which are passing about women. It was high time where we women demanded a change. This design is grounded on women security where women feel defended. This plan introduces women's safety through GPS tracking and cautions by the ARDUINO system, which can be connected to an alarm system and notify a people. In each field there's a special impact of women Like sports, cotillion, education, business, in politics also. Women are leading in each field. Are the women in India are alright? Always we get the answer No. Hence enforced electronic system is fitted in the jacket which has GSM, GPS, shock circuit, buzzer, flex detector, Arduino Nano to crub all of the below components.

Keywords ARDUINO NANO, GPS modem, GSM modem, flex detector, Buzzer, Shock circuit.

## 1. INTRODUCTION:

In today's India, women are still facing social challenges and are often victims of violent crimes. Even in this period women are thinking twice before coming out of their house because of increasing offense rates in our country. Women working in corporate sector are facing more problems with the security during night shifts. This today's society has given equal rights for women to compete in any field with men even news about women harassment is more than women achievement.

Where new inventions are being created day by day even then women are facing a lot of problem about their safety.

## PROBLEM STATEMENT:

The problem arises when a woman is in peril they come veritably helpless that they may not be in a position to operate their mobile phone indeed though there are numerous mobile operation for women security. She may not defend herself from the bushwhacker.

Taking this as a problem into consideration, designing of a smart protection Jacket is veritably important demanded. This Jacket can be fluently carried out anywhere and comfortable to use at any time.

## OBJECTIVE:

The basic objective of this paper is to design a Stree Atmanirbharta Jacket. This jacket acts as a safety preserver to protect her against any attacks during night.

## 2. LITERATURE SURVEY:

Women safety Application using android mobile. In this system can Show exact location to relatives, parents, friends and track Every time interval.

[1] Panic button using controller this panic button is used for safety while emergency Situation occurs.

[2] Arduino Nano based wearable jacket for women Safety. In this paper unified combination of wearable jacket and mobile

technology for Protection of women in the perception. This system helps to alert family members and people closest to the sufferer by using buzzer,GPS,GSM Module.

[3] Intellectual safety system for women’s security In this paper the authors have analysed of various existing 25412541 Systems on women security. The GPS module tracks the Longitude, latitude to trace an location of a user and sends the message including Location to the registered contact numbers.

### 3. BLOCK DIAGRAM:

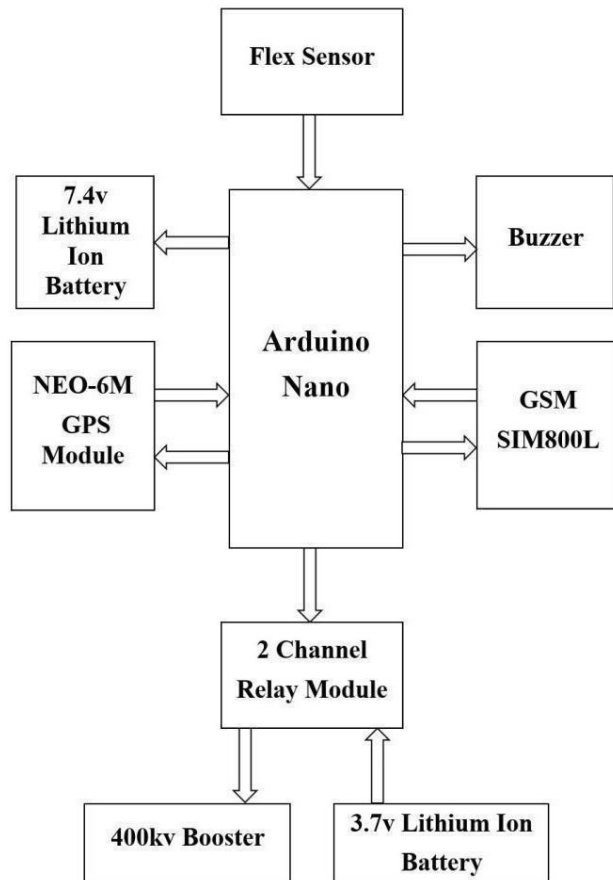


Fig-1: Block diagram of the project

### 3.1 DESCRIPTION:

#### ARDUINO NANO:

ARDUINO NANO is a microcontroller board works with ATmega328p micro controller. The board is equipped with set of 14 digital and 8 analog input output pins. It is interfaced to various expansion boards and other peripherals for different applications. The power supply for the board is given by using mini USB connection of 5V. ATmega328p is

an 8- bit micro controller worked on AVR RISC architecture. It is one of the best AVR controllers and is used in many ARDUINO boards.

#### NEO-6M GPS:

GPS stands for Global Positioning System. GPS is used to covering the position of the user. The position is traced in the form of latitude and longitude equals. GPS NEO6MV2 is having inbuilt ceramic patch antenna, EEPROM memory, battery, and LED suggestion. The operating voltage of GPS is 4.3 V –5.7V.

#### GSM SIM800L:

GSM means Global System for Mobile Communication. The operating voltage of GSM SIM800L is 3.4V – 4.4V. GSM is used to send the alert messages and calls to the registered contact numbers. The working of GSM modem is based on AT (ATtention) commands, where these AT commands are given to the GSM modem with the help of micro controller.

#### BUZZER:

The buzzer is directly connected to the ARDUINO NANO. Buzzer is used to produce the continuous sound at an audible range of 40-80 db. It is mainly used to alert the nearby people if there is any emergency situation.

#### FLEX SENSOR:

A flex sensor is a kind of sensor which is used to measure the amount of defection otherwise Bending. The designing of this sensor can be done by using materials like plastic and carbon. The Carbon surface is arranged on a plastic strip as this strip is turned aside then the sensor’s resistance will be changed.

#### 2-CHANNEL RELAY MODULE:

2 Channel 5V Relay Module is a relay interface board, it can be controlled directly by a wide range of microcontrollers similar as Arduino, AVR, PIC, ARM and so on. It uses a low position touched off control signal(3.3- 5VDC) to control the relay. Driving the relay operates the typically open or typically closed connections.

#### 400Kv BOOSTER:

The high-voltage module uses the principle Tesla coil is made of high-voltage pulse output voltage current, small size, high efficiency, simple external circuit (just plug in the switch, the battery can be) discharge intensity violent. This module is a

small production with high-pressure science inverter transformer/ booster finished module, the input terminal DC 3V – 7.2V can get 20KV DC high voltage (about 1-2 cm arc) at the output.

**SHOCK CIRCUIT:**

Shock circuit consist of 7.4v Lithium Ion battery it's generates some voltage when a push button is pressed. It is helpful for the women to protect herself from the criminal.

**4. FLOWCHART:**

The below shows the flowchart of the women safety jacket

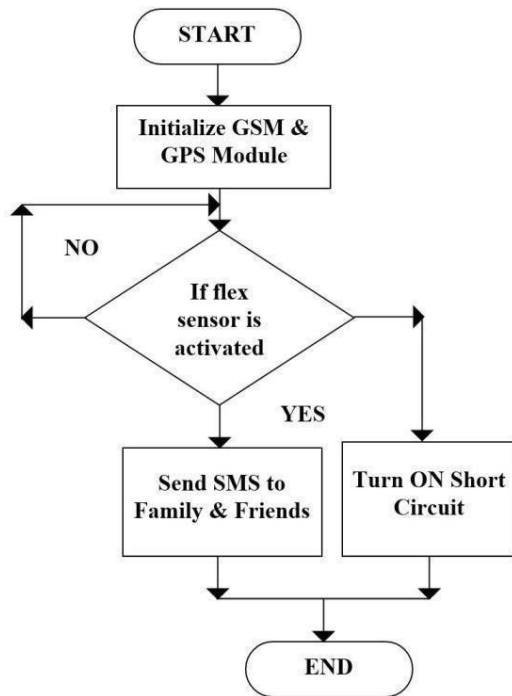


Fig-2: Flow chart of the project

**5. WORKING:**

Stree Atmanirbharta jacket consists of an fear button, when a woman who's in peril presses that horrify button, Arduino Nano gets turned on. GPS MODEM, GSM MODEM, buzzer, shock circuit will get instructions from the micro regulator and perform the separate operations. Buzzer suggestion makes the nonstop temptress to snare the attention of the near people; shock circuit will produce some voltage by that she

can defend herself from the attacker while GPS will track the position of the victim and the information to their parents, cousins by means of GSM modem in the form of dispatches and calls. This flex detector senses the force of the user, if there's force or pressure on flex guarantor by felonious also detector get fraudulent down and signal sends to regulator after that short circuit is in working condition.

**6. RESULTS:**

Stree Atmanirbharta Jacket for Women Safety In That We Use Wireless System to Communication, position. It Is veritably Useful For Security Purpose. Shock Circuit Is Used To Injure bushwhacker For Self Defense. Thus This System Is Used for Protection and to Control Other Conditioning Which Are Happen moment's Life. Buzzer Is habituated For Help. All These small Circuit Connected To The Arduino Nano.

**7. CONCLUSION:**

The proposed plan will help the girl when she is Unsafe Zone. She can make defense of herself in unsafe situations. And this jacket will use to decrease the tensivity of women when she walks alone in night hour also, so that she Will never feel helpless at any situation and can protect Her by herself.

**8. FUTURE SCOPE:**

Wearable bias similar as exertion trackers are a Good. Illustration of the Internet of effects, since they Are part of the network of physical objects or “ effects ” bedded with electronics, software, Detectors and connectivity to enable objects to Exchange data with a manufacturer, driver And/ or other connected bias, without taking mortal intervention. This design is veritably Useful in future for an women safety.

Primary School Children Safety- As the academy Children safety are major enterprises for parents as Well as academy operation due to the recent Incidents of child crimes like children missing, Abuse, hijacking etc. This module monitors the Child safety when they're travelling in academy motorcars.

**9. REFERNCE:**

- 1. <https://innovativeideasyoutube.blogspot.com/2021/07/womens-safety-gadgets.html?m=1>

