WOMEN SAFETY DEVICE

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ABSTRACT

India which sees itself as a promising super power and an economic hub, is still trapped in the clutches of various patriarchal evils like molestations, dowry, crime against women, worst among all is rape. In today's world, women safety has become a major issue as they can't step out of their house at any given time due to fear of physical/sexual abuse and violence. The atrocities against the women can be now brought to an end with the help of a Women Safety Device. This device sensing the emergency situation and fetches the current location of woman and sends it to emergency contacts via GSM module and also a shock giver circuit which is intended to hurt the attacking the person, due to which there is a chance for the women to escape.

Keywords: Women Safety, Emergency, Alerting, Self-defence.

INTRODUCTION

This women safety device is a microcontroller based system. An ATmega8 microcontroller is one of the series AVR microcontrollers, one of the oldest yet commonly used microcontrollers. It has the less complex features than other microcontrollers and it is also easily available and cheap in comparison of other microcontrollers. The implementation of women safety system was done on AVR microcontroller via GSM modem and the interfacing is done through MAX-RS 232. Communication of alarming situation & prevention of incident has achieved by GPS, GSM technology, and defensive system respectively. This is the aim of our system. As a result the design is separated into two parts. A) Message of the offense throughout wireless B) Prevention of the crime.

1) The women wearing a watch or band when finds that someone is going to harass, she presses a switch that is located on the watch or band. The signal gets transmitted to GSM module which then decodes the received information (either some code or name) and then activates the AVR microcontroller in which contacts of 4 people and message "HELP" is stored in memory is sent to the destination through GSM.

2) This safety device works for self-defense and prevention of crime as well. As soon as the emergency situation is detected. Also, for self-defense, this device includes a shock generator which a woman can use against an attacker in case of emergency. This shock is intense enough to scare the attacker away.

1.1 INTRODUCTION TO EMBEDDED SYSTEMS

The microprocessor-based system is built for controlling a function or range of functions and is not designed to be programmed by the end user in the same way a PC is defined as an embedded perform one particular task albeit with different choices and options.

Embedded systems contain processing cores that are either microcontrollers or digital signal processors. Microcontrollers are generally known as "chip", which may itself be packaged with other microcontrollers in a hybrid system of Application Specific Integrated Circuit (ASIC). In general, input always comes from a detector or sensors in more specific word and meanwhile the output goes to the activator which may start or stop the operation of the machine or the operating system. An embedded system is a combination of both hardware and software, each embedded system is unique and the hardware is highly specialized in the application domain. Hardware consists of processors, microcontroller, IR sensors etc. On the other hand, Software is just like a brain of the whole embedded system as this consists of the programming languages used which makes hardware work. As a result, embedded systems programming can be a widely varying experience. An embedded system is combination of computer hardware and software, either fixed incapability or programmable, that is specifically designed for particular kind of application device. Industrial machines, automobiles, medical equipment, vending machines and toys (as well as the more obvious cellular phone and PDA) are among the myriad possible hosts of an embedded system. Embedded systems that are programmable are provided with a programming interface, and embedded systems programming id specialized occupation.
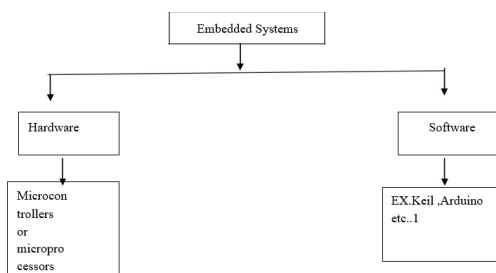
Figure 1 Block diagram of embedded system

Figure 1 illustrate the Block diagram of Embedded System (*ES consists of hardware and software part which again consists of programming language and physical peripherals respectively*).

On the other hand, the microcontroller is a single silicon chip consisting of all input, output and peripherals on it. A single microcontroller has the following features:

1. Arithmetic and logic unit

2. Memory for storing program

3. EEPROM for nonvolatile and special function registers

4. Input/output ports

5. Analog to digital converter

6. Circuits

7. Serial communication ports

1.2 APPLICATIONS OF EMBEDDED SYSTEM

We are living in the embedded world. You are surrounded with many embedded products and your daily life largely depends on the proper functioning's of these gadgets, television, radio, CD layer of your living room, washing machines or microwave oven in your kitchen, card readers, access controllers ,palm devices of your work space enable to do many of your tasks very effectively. Apart from all these, many controllers embedded in your car take care of your car operation between the bumper and most of the times tend to ignore all these controllers.

In recent days you are showered with variety of information about these embedded controllers in many places. All kind of magazines and journals regularly dish out details about latest technologies, new devices: fast applications which make you believe that your basic survival is controlled by these embedded products. Now you can agree to that fact these embedded products have successfully invaded into our world. you must be wandering about these embedded controllers or systems.

The computer you use to compose your mails, or create a document or analyze the database is known as standard desktop computer. These desktop computers are manufactured to serve many purpose and applications.

1.3 COMMUNICATIONS APPLICATIONS

Five-nine" availability, compact PCI hot swap support, and hard real-time response Linux OS delivers on these key requirements and more for today's carrier-class systems. Scalable kernel configurations, distributed computing capabilities, intergraded communications stacks, and fault-management facilities make Linux OS the ideal choice for companies looking for single operating system for all embedded telecommunication applications from complex central to single line/trunk cards.

1.4 ELECTRONICS APPLICATIONS AND CONSUMER DEVICES

As the number of powerful embedded processor in consumer devices continues to rise, the blue cat Linux operating system provides a highly reliable and royalty-free option for system designers. And as the wireless appliance revolution rolls on, web enabled navigation systems, radios, personal communication devices, phones and PDAs all benefit from the cost- effective dependability, proven stability and full product life cycle support opportunities associated with blue cat embedded Linux. Blue cat has teamed uo with industry leaders to make it easier to build Linux mobile phones with java integration.

2. VIEWS ON WOMEN SAFETY

As we all know that India is a most famous country all over the world for its great tradition and culture where women are given most respected place in the society from the ancient time. It is the country where women are considered as safer and most respected.

Women are given the place of Goddess Lakshmi in the Indian society. Indian women are found working in all fields like aeronautics, space, politics, banks, schools, sports, businesses, army, police, and many more. We cannot say that this country has no any women concern however we cannot ignore positive points for women in India. If we remember our history, we found that there was PanchaaliPratha in which a single woman (Draupadi) was allowed to get married to five men (Pandavas). It was all that what we see from our open eyes however if we see behind the curtain we will found all the crimes against women at home, offices, streets, etc. By seeing last few crimes against women in India such as rape cases, acid attacks, etc, the safety of women has been in doubt.Safety of women matters a lot whether at home, outside the home or working place.

Last few crimes against women especially rape cases were very dread and fearful. Because of such crimes, women safety in India has become a doubtful topic. According to the statistics of National Crime Records Bureau, highest rate of crime against women was recorded in the Chennai in 2000 (around 4,037 incidences). Chennai is the capital of southern state of Tamil Nadu however has been marked as city with high rate of crimes against women. However, it was seen some decrease in the crime rate against women in the subsequent years (around 838 by 2013).

It has been recorded as the largest fall in the crime rate than other cities in India. It was just opposite in the capital of India, Delhi. Crime rate against women in Delhi was 17.6/100,000 females in 2000 (2,122 incidents) and 151.13/100,000 females in 2013 (11,449 incidents).Some of the most common crimes against women are rape, dowry deaths, sexual harassment at home or work place, kidnapping and abduction, cruelty by husband, relatives, assault on a woman and sex trafficking. Our primary goal of this project is to ensure every woman in our society to feel safe and secured. According to the survey in India 53% of working women are not feeling safe – Women is working in night shift (Bangalore-56%, Chennai-28%, Hyderabad-35%, Mumbai-26%). Overall 86% of working women in India, women facing hurdles are high in Delhi, Mumbai, Hyderabad, Kolkata and Pune comparatively to other places. Women Safety Device can play a major role by providing women a safe environment in all situations for example (detecting hidden camera, physically threatened, harassed, robbery, stalked). Implementing real time application and a device, we can solve the problems to an extent. With further research and innovation, this project can be used as a small wearable device like watch, pendent etc.

3. LITERATURE REVIEW

3.1 One Touch Alarm System for Women's Safety using GSM

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INTRODUCTION

One touch alarm system for women's safety using GSM describes about system for women's safety using GSM. Here we introduce a device which ensures the protection of women. This helps to identify protect and call on resources to help the one out of dangerous situations. Anytime you sense danger, all you had to do, is hold on the button of the device. The device consists of a microcontroller, GSM module, GPS modules. When the system activates, it tracks the place of the women using GPS (Global Positioning System) and sends emergency messages using GSM (Global System for Mobile communication), to selected contacts and the police control room. The system resembles a

normal button that can be embedded in any daily wearing obstacles like footwears or something.

PROPOSED WORK

This project describes about a one touch alarm system for women's safety using GSM. In the light of recent outrage in Delhi which shook the nation and woke usto the safety issues for women, people are finding up in different ways to defend. Here we introduce a device which ensures the protection of women. This helps to identify protect and call on resources to help the one out of dangerous situations. Anytime you senses danger, all you had to do, is hold on the button of the device. The device consists of a microcontroller, GSM module, GPS modules. The system resembles a normal watch which when activated, tracks the place of the women using GPS (Global Positioning System) and sends emergency messages using GSM (Global System for Mobile communication), to selected contacts and the police control room. The main advantage of this system is that the user does not require a Smartphone unlike other applications that have been developed earlier. The use of sophisticated components ensures accuracy and makes it reliable.

3.2 Women Security System using GSM & GPS

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ABSTRACT

Children and women are facing many security problems nowadays. So in such cases they feel handicap and need help to protect them. In the light of recent outrage in kopardi which shook the nation and woke us for the safety purpose for women, people are finding up in different technique to defend. Hence there must be a system which can protect them in such difficult situation. This paper suggests a new technology for a women safety with one touch system using GSM & GPS so that women never feel helpless while facing such social problems or challenges. Here we introduce a device which ensures the protection of women. The problems we have overcome here using raspberry pi, GSM, GPS and force sensor. Anytime when women sense danger only button is to be pressed on the device. In such case GPS tracks the location of the women & sends emergency message using GSM to saved contacts & police control room. The system proven that it is providing complete security to women's and kids wherever we are using it.

KEYWORDS:

Security, Raspberry pi, GPS, GSM, push button, audio video recorder, buzzer, force sensor.

SYSTEM OPERATION

In this work we have introduced GSM module. GSM module will send the message to her relatives and also to the police. So, the relatives and the police can reach to girl/women to help her immediately. We have

interfaced a GPS module to find location of the girl in the danger.

Message the location of the girl will be send to her relatives and police. So, the relatives and the police reach to girl/women to help her immediately by getting the location (co-ordinates) accessing Google Maps. Thus the girl will be safe and she feels protected.

Whenever panic switch is pressed the device will get activated. The audio and video recorder will start to capture the live incident. If the pressure sensor sense the physical pressure the message will be send to contacts with the live recording through GSM. Buzzer is provided in the device, when the device gets activated the buzzer produces high sound in the surrounding. So, nearby people may hear the sound and may give help to her. Spy-camera starts functioning when device activates and capture the video of present location and the data is stored in SD card.

ADVANTAGES:

Safety Device which can be carried by everyone – These devices will be used for safety purpose which will be easier for carrying from place to place.

- Compact in size-The device will be small in size.
- Easy and fast to install - These system will be easy to handle.
- Low cost with high performance
- The device will be in a low cost which will work with a good performance.
- Environmental friendly system
- The system will not harmful for the surrounding.

4. BLOCK DIAGRAM
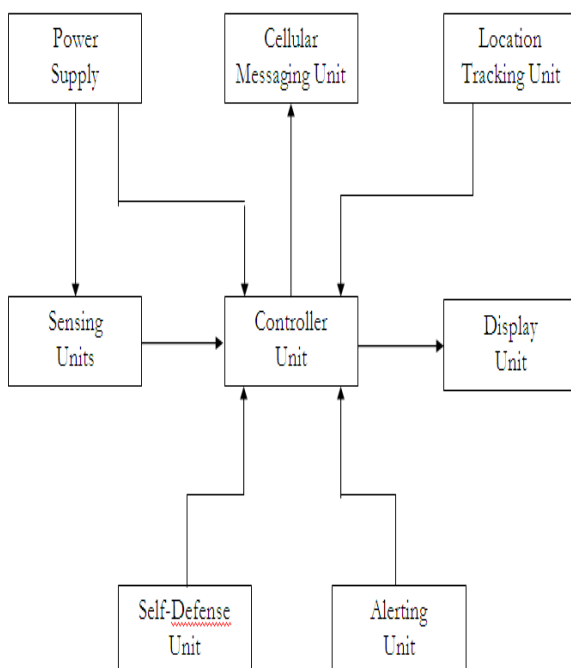
5. MAIN COMPONENTS

- o LCD DISPLAY
- o GSM MODEM
- o GPS MODEM
- o SHOCK GENERATOR
- o MICROCONTROLLER
- o SWITCH BUTTON
- o BATTERY

5.1 LCD DISPLAY

We always use devices made up of Liquid Crystal Displays (LCDs) like computers, digital watches and also DVD and CD players. They have become very common and have taken a giant leap in the screen industry by clearly replacing the use of Cathode Ray Tubes (CRT). CRT draws more power than LCD and

are also bigger and heavier. LCD's have made displays thinner than CRT's. Even while comparing the LCD screen to an LED screen, the power consumption is lesser as it works on the basic principle of blocking light rather than dissipating. All of us have seen an LCD, but no one knows the exact working of it. Let us take a look at the working of an LCD.

It is typically of the order of microwatts for the display in comparison to the some order of milliwatts for LEDs. Low power consumption requirement has made it compatible with MOS integrated logic circuit. Its other advantages are its low cost, and good contrast. The main drawbacks of **LCD**s are additional requirement of light source, a limited temperature range of operation (between 0 and 60° C), low reliability, short operating life, poor visibility in low ambient lighting, slow speed and the need for an ac drive.

5.2 GSM MODEM

Global System for Mobile Communication (GSM) SIM card is a device to send the location obtained through GPS. The GSM SIM card number is registered with the system. In this proposed device the GSM acts as a receiver while the GPS acts as a transmitter.

sent as an SMS to the few predefined emergency numbers. The receiver pin of GSM is interfaced with 16th pin of the microcontroller. The supply voltage is about

3.4V which is supplied from the voltage regulator circuit.

FIG 4: GSM MODEM

GSM is a mobile communication modem; it is stands for global system for mobile communication (GSM). The idea of GSM was developed at Bell Laboratories in 1970. It is widely used mobile communication system in the world. GSM is an open and digital cellular technology used for transmitting mobile voice and data services operates at the 850MHz, 900MHz, 1800MHz and 1900MHz frequency bands.

GSM system was developed as a digital system using time division multiple access (TDMA) technique for communication purpose. A GSM digitizes and reduces the data, then sends it down through a channel with two different streams of client data, each in its own particular time slot. The digital system has an ability to carry 64 kbps to 120 Mbps of data rates.

There are various cell sizes in a GSM system such as macro, micro, pico and umbrella cells. Each cell varies as per the implementation domain. There are five different cell sizes in a GSM network macro, micro, pico and umbrella cells. The coverage area of each cell varies according to the implementation environment.

5.2.1 Features of GSM Module:

- Improved spectrum efficiency
- International roaming
- Compatibility with integrated services digital network (ISDN)
- Support for new services.
- SIM phonebook management
- Fixed dialing number (FDN)
- Real time clock with alarm management
- High-quality speech
- Uses encryption to make phone calls more secure
- Short message service (SMS)

5.3 GPS MODEM

GPS receivers use a constellation of satellites and ground stations to compute position and time almost anywhere on earth.

It consists of six wires out of which three wires are used for connection. The blue wire is the transmitter wire which is connected to the 15th pin of the microcontroller. Voltage supply is about 3.3V to 5V.When trigger button is pressed, GPS starts receiving signals from 8 satellites out of the 24 satellites in the orbit [3]. Once if the connection is established the latitude and longitude values of the current location are obtained. The GPS acts as a transmitter. The 5V supply is given to the GPS from the

microcontroller.

FIG 5: GPS MODEM

At any given time, there are at least 24 active satellites orbiting over 12,000 miles above earth. The positions of the satellites are constructed in a way that the sky above your location will always contain at most 12 satellites. The primary purpose of the 12 visible satellites is to *transmit* information back to earth over radio frequency (ranging from 1.1 to 1.5 GHz). With this information and some math, a ground based *receiver* or GPS module can calculate its position and time.

How does a GPS receiver calculate its position and time?

The data sent down to earth from each satellite contains a few different pieces of information that allows your GPS receiver to accurately calculate its position and time. An important piece of equipment on each GPS satellite is an extremely accurate atomic clock. The time on the atomic clock is sent down to earth along with the satellite's orbital position and arrival times at different points in the sky. In other words, the GPS module receives a timestamp from each of the visible satellites, along with data on where in the sky each one is located (among other pieces of data). From this information, the GPS receiver now knows the distance to each satellite in view. **If the GPS receiver's antenna can see at least 4 satellites, it can accurately calculate its position and time.** This is also called a lock or a fix.

5.3.1 Features of G702-001UB

• Received bandwidth is about 1575.42MHz.

• 50 tracking channels are available.

• Accuracy in terms of time is about 1 us.

• The maximum altitude is about 18000 m.

• Maximum speed is about 500 m/s.

• Sensitivity of tracking is about 162dBm.

• Operating temperature is about 30 degree to 80degree.

5.4 SHOCK GENERATOR

A device has been developed for the effective delivery of a preset constant current AC electric shock. The shock intensity is adjustable from zero to a maximum of 10 ma as the voltage varies between 0 to 5 kv. The 5-kv, 60-HZ, AC voltage insures a constant-current output regardless of skin contact resistance changes. Shock duration is internally controlled and a "fail safe" lockout circuit to render the apparatus inoperative is provided in case of accidental sticking or failure of control relay signals from either internal circuitry or from behavioral programming equipment.
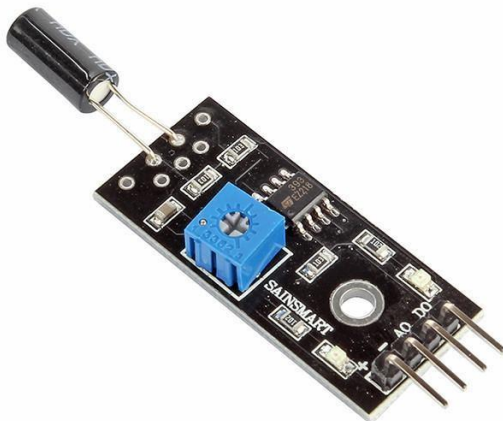

FIG 6: SHO GENERATOR

In a situation where less or no people are nearby, a woman must be able to protect and defend herself as well as create some trouble for the abuser by some very easy means. The self-defense unit consists of a shock generator devices that produces an instant electric shock which when used by the woman can immobilize and hurt the attacker.

5.5 MICROCONTROLLER

ATmega8Lis an 8-bit high performance microcontroller of Atmel's Mega AVR family with low power consumption. Atmega8L is based on enhanced RISC architecture with 130 powerful instructions. Most of the instructions execute in one machine cycle. ATtmega8L can work on a maximum frequency of 16MHz. ATmega8L devices are available in 28-pin

FIG 7: MICRO CONTROLLER

5.5.1 Pin diagram of ATMEGA328

FIG 8: PIN CONFIGURATION

5.5.2   PIN EXPLANATION

Pin Number	Description	Function
1	PC6	Reset
2	PD0	Digital Pin (RX)
3	PD1	Digital Pin (TX)
4	PD2	Digital Pin
5	PD3	Digital Pin (PWM)
6	PD4	Digital Pin
7	Vcc	Positive Voltage (Power)
8	GND	Ground
9	XTAL 1	Crystal Oscillator
10	XTAL 2	Crystal Oscillator
11	PD5	Digital Pin (PWM)
12	PD6	Digital Pin (PWM)
13	PD7	Digital Pin
14	PB0	Digital Pin
15	PB1	Digital Pin (PWM)
16	PB2	Digital Pin (PWM)
17	PB3	Digital Pin (PWM)
18	PB4	Digital Pin
19	PB5	Digital Pin
20	AVcc	Positive voltage for ADC (power)
21	Aref	Reference Voltage
22	GND	Ground
23	PC0	Analog Input
24	PC1	Analog Input
25	PC2	Analog Input
26	PC3	Analog Input
27	PC4	Analog Input
28	PC5	Analog Input

Pin Descriptions table

5.5.2.1 VCC
Digital supply voltage.

5.5.2.2 GND
Ground.

5.5.2.3   Port   B   (PB[7:0]) XTAL1/XTAL2/TOSC1/TOSC2
Port B is an 8-bit bi-directional I/O port with internal pull-up resistors (selected for each bit). The Port B output buffers have symmetrical drive characteristics with both high sink and source capability. As inputs, Port B pins that are externally pulled low will source current if the pull-up resistors are activated. The Port B

pins are tri-stated when a reset condition becomes active, even if the clock is not running.

Depending on the clock selection fuse settings, PB6 can be used as input to the inverting Oscillator amplifier and input to the internal clock operating circuit.

Depending on the clock selection fuse settings, PB7 can be used as output from the inverting Oscillator amplifier.

If the Internal Calibrated RC Oscillator is used as chip clock source, PB[7:6] is used as TOSC[2:1] input for the Asynchronous Timer/Counter2 if the AS2 bit in ASSR is set.

5.5.2.4 Port C (PC[5:0])
Port C is a 7-bit bi-directional I/O port with internal pull-up resistors (selected for each bit). The PC[5:0] output buffers have symmetrical drive characteristics with both high sink and source capability. As inputs, Port C pins that are externally pulled low will source current if the pull-up resistors are activated. The Port C pins are tri-stated when a reset condition becomes active, even if the clock is not running.

5.5.2.5 PC6/RESET

If the RSTDISBL Fuse is programmed, PC6 is used as an I/O pin. Note that the electrical characteristics of PC6 differ from those of the other pins of Port C.

If the RSTDISBL Fuse is unprogrammed, PC6 is used as a Reset input. A low level on this pin for longer than the minimum pulse length will generate a Reset, even if the clock is not running. Shorter pulses are not guaranteed to generate a Reset.

The various special features of Port C are elaborated in the *Alternate Functions of Port C* section.

5.5.2.6 Port D (PD[7:0])
Port D is an 8-bit bi-directional I/O port with internal pull-up resistors (selected for each bit). The Port D output buffers have symmetrical drive characteristics with both high sink and source capability. As inputs Port D pins that are externally pulled low will source current if the pull-up resistors are activated. The Port D pins are tri-stated when a reset condition becomes active, even if the clock is not running.

5.5.2.7 AVCC

AVCC is the supply voltage pin for the A/D Converter, PC[3:0], and PE[3:2]. It should be externally connected to VCC, even if the ADC is not used. If the ADC is used, it should be connected to VCC through a low-pass filter. Note that PC[6:4] use digital supply voltage, VCC.

5.5.2.8 AREF

AREF is the analog reference pin for the A/D Converter.

5.5.2.9 ADC[7:6] (TQFP and VFQFN Package Only)

In the TQFP and VFQFN package, ADC[7:6] serve as analog inputs to the A/D converter. These pins are powered from the analog supply and serve as 10-bit ADC channels.

5.5.3 Arduino Uno Borad Description

we will learn about the different components on the Arduino board. We will study the Arduino UNO board because it is the most popular board in the Arduino board family. In addition, it is the best board to get started with electronics and coding. Some boards look a bit different from the one given below, but most components in
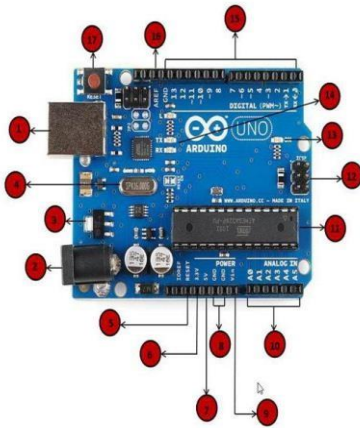

FIG 9 :Arduino UNO board

5.5.3.1 Power USB

Arduino board can be powered by using the USB cable from wer computer. All we need to do is connect the USB cable to the USB connection (1)

5.5.3.2 Power (Barrel Jack)

Arduino boards can be powered directly from the AC mains power supply by connecting it to the Barrel Jack (2)

5.5.3.3 Voltage Regulator

The function of the voltage regulator is to control the voltage given to the Arduino board and stabilize the DC voltages used by the processor and other element

5.5.3.4 Crystal Oscillator

The crystal oscillator helps Arduino in dealing with time issues. How does Arduino calculate time? The answer is, by using the crystal oscillator. The number printed on top of the Arduino crystal is 16.000H9H. It tells us that the frequency is 16,000,000 Hertz or 16 MHz.

5.5.3.5 Arduino Reset

We can reset wer Arduino board, i.e., start wer program from the beginning. We can reset the UNO board in two ways. First, by using the reset button (17) on the board. Second, we can connect an external reset button to the Arduino pin labelled RESET (5).

5.5.3.6 Pins (3.3, 5, GND, Vin)

☐ 3.3V (6) − Supply 3.3 output volt

☐ 5V (7) − Supply 5 output volt Most of the components used with Arduino board works fine with 3.3 volt and 5 volt. GND (8)(Ground) −

☐ There are several GND pins on the Arduino, any of which can be used to ground wer circuit.

☐ Vin (9) − This pin also can be used to power the Arduino board from an external power source, like AC mains power supply.

5.5.3.7 Analog pins

o The Arduino UNO board has five analog input pins A0 through A5. These pins can read the signal from an analog sensor like the humidity sensor or temperature sensor and convert it into a digital value that can be read by the microprocessor.

5.6 SWITCH BUTTON

A **push button** (also spelled **pushbutton**) or simply **button** is a simple switch mechanism for controlling some aspect of a machine or a process. Buttons are typically made out of hard material, usually plastic or metal. The surface is usually flat or shaped to accommodate the human finger or hand, so as to be easily depressed or pushed. Buttons are most often biased switches, although many un-biased buttons (due to their physical nature) still require a spring to return to their un-pushed state. Terms for the "pushing" of a button include **pressing**, **depressing**,

FIG 10: SWITCH BUTTON

5.7 BATTERY

Electricity, as you probably already know, is the flow of electrons through a conductive path like a wire. This path is called a circuit.

Batteries have three parts, an *anode* (-), a *cathode* (+), and the *electrolyte*. The cathode and anode (the positive and negative sides at either end of a traditional battery) are hooked up to an electrical circuit
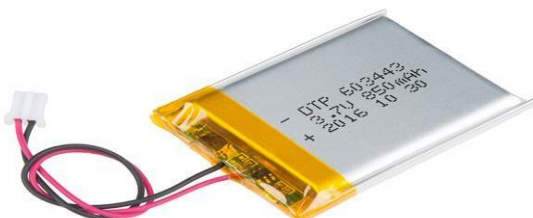

FIG 11: BATTERY

The chemical reactions in the battery causes a build up of electrons at the anode. This results in an electrical difference between the anode and the cathode. You can think of this difference as an unstable build-up of the electrons. The electrons wants to rearrange themselves to get rid of this difference. But they do this in a certain way. Electrons repel each other and try to go to a place with fewer electrons.

In a battery, the only place to go is to the cathode. But, the electrolyte keeps the electrons from going straight from the anode to the cathode within the battery. When the circuit is closed (a wire connects the cathode and the anode) the electrons will be able to get to the cathode. In the picture above, the electrons go through the wire, lighting the light bulb along the way. This is one way of describing how electrical potential causes electrons to flow through the circuit.

6 FLOWCHART & WORKING PROCEDURE

6.1 FLOW CHART

FIG 12: FLOW CHART

6.2 WORKING PROCEDURE

This project clearly uses two main modules of GSM and a microcontroller. The user when sends the messages through his phones those reaches the GSM ,through the AT commands all those messages reaches the microcontroller. That microcontroller takes the data in terms of bits through the Max232.Those information will be transmitted to the LCD display and also a shock giver circuit which is intended to hurt the attacking the person, due to which there is a chance for the women to escape.

7 ADVANTAGES, DISADVANTAGES AND APPLICATIONS

7.1 ADVANTAGES:

- Sophisticated security.
- Monitors all hazards and threats. Alert message to mobile phone for remote information.
- Mobile number can be changed at any time.
- Can be used to prevent incidents. Primary School ChildrenSafety

7.2 DISADVANTAGES:

- Network problem
- Available only for android devices Victim need to manually trigger the application
- Accuracy depends upon density of cell towers

7.3 : APPLICATIONS

- Security appliances.
- Safety of women.
- Used as a legal evidence of crime with exact location information for prosecution**.**

8   CONCLUSION

Being safe and secure is the demand of the day. Our effort behind this project is to design and fabricate a gadget which is so compact in itself that provide advantage of personal security system. This design will deal with most of the critical issues faced by women and will help them to be secure. Existing systems provide the mechanism to track the vehicle but no other emergency mechanism is proposed. The proposed mechanism provides viewing the location of the victim in terms of latitude and longitude which can further be tracked using Google maps. This system helps to decrease the crime rate against women. Women's security is a critical issue in current situation. These crimes can be brought to an end with the help of real time implementation of our proposed system.

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