

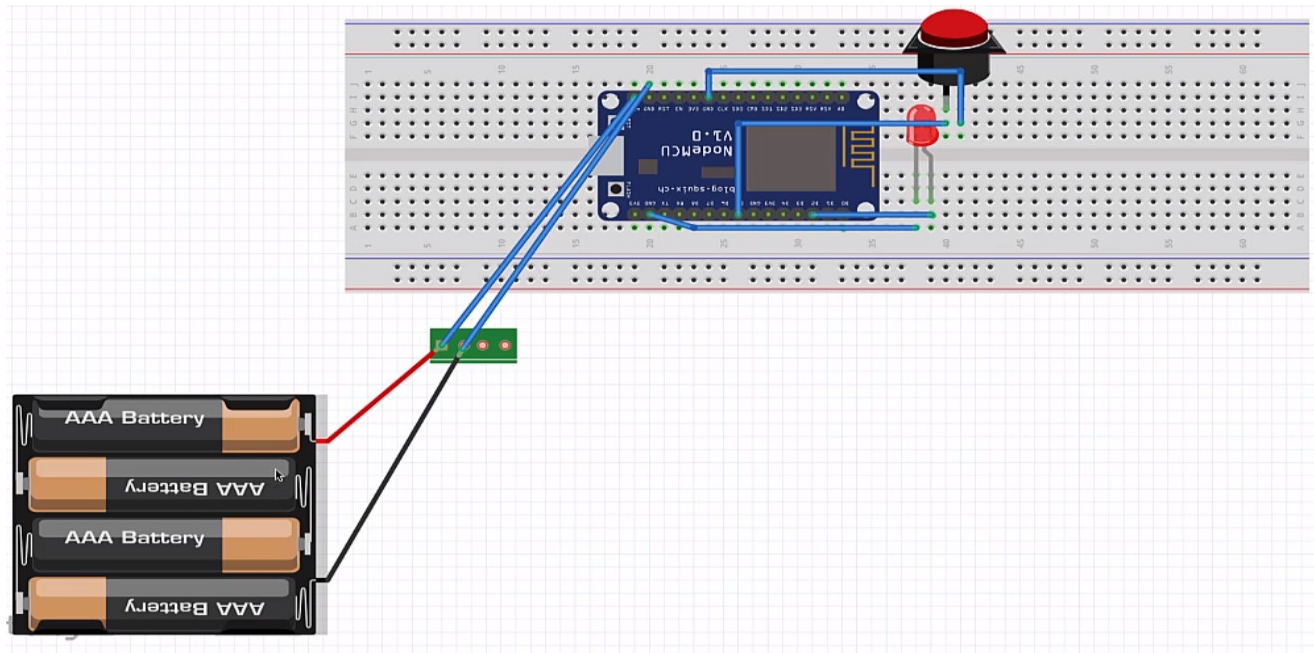
Introduction:

As we all know that the present developments in technology have been always more focused towards the younger generations of the society. Even the most portable device – Mobile phones have developed so much that they can do almost everything a powerful computer can. But if we notice closely, we can see that even these mobile phones don't have any dedicated button for panic triggering. They are either long press of power button or some other hardware trigger which is hard to trigger during emergencies. So now if we imagine these phones are given to our elders so that they can use these to contact us during emergencies, either the chances are high that they don't have the device near them to trigger a panic alarm or are not able to with the device. So as a part of health care industry IoT, the panic alarm watch is made for elderly people where the device will be strapped onto their hands and when in danger, all they must press is a small button to trigger panic. The watch also comes with a LED indicator to indicate that the message has been sent to the people when the button is pressed. The watch is light weighted and connects itself to Wi-Fi automatically when powered

Apparatus required:

S.no	Apparatus	Specification	Quantity	Price per quantity (₹)
1.	Bread board		1	120
2.	NodeMCU		1	340
3.	Push Button		1	5
4.	LED		1	2
5.	Connecting wires		6	3
6.	Micro USB cable		1	50
Total COST				520

Block Diagram:



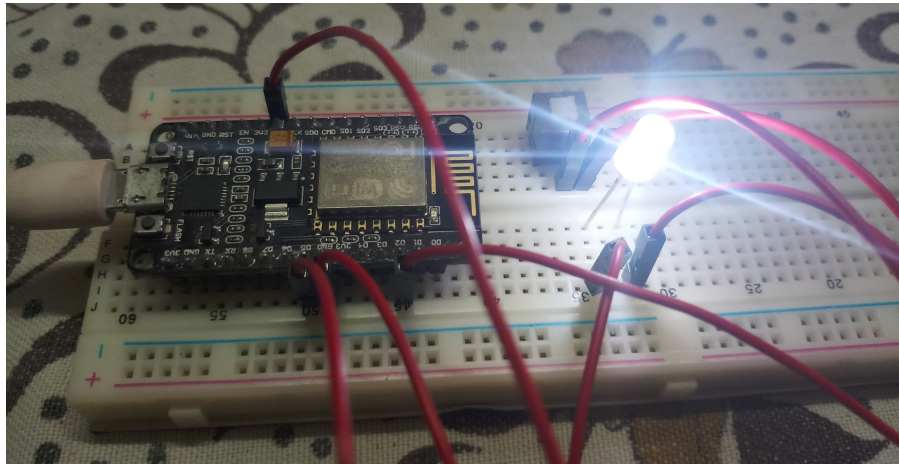
Explanation:

Here only a Node MCU is used as the communication device. When a code dumped Node MCU is powered with all the above connections made, the Node MCU connects first connects to the defined Wi-Fi name and SSID in the code. Then it connects to the defined Username, Device name and gateway code of the Thingier.io cloud. When the button is triggered, the action defined in the endpoint mentioned in the code and cloud gets triggered, here it is to send email to the respective people. Also, an LED that is connected to the board is turned for 5s on button trigger.

Output:



Device List			
<div>+ Add Device</div>			<div>Search</div>
Device	Description	Last Connection	State
<input type="checkbox"/> RAH	NodeMCU	2019-04-24 20:12:55 +0530	Connected
<input type="checkbox"/> RHA	NodeMCU	2019-04-16 12:34:33 +0530	Disconnected



Code:

```
PANIC_IOT$
#include <SPI.h>
#include <ThingierESP8266.h>

#define USERNAME "RHIN"
#define DEVICE_ID "RAH"
#define DEVICE_CREDENTIAL "jn46nuVV6SmP"

ThingierESP8266 thing(USERNAME, DEVICE_ID, DEVICE_CREDENTIAL);
int val = 0;    // variable for reading the pin status

void setup() {

    pinMode(D2, OUTPUT); // declare LED as output
    pinMode(D5, INPUT_PULLUP); // declare pushbutton as input
    Serial.begin(115200);

    //connecting to WIFI
    thing.add_wifi("Virus Uploading", "Rahulrock1410$");
    Serial.println("entering the gates");
}

void loop() {

    val = digitalRead(D5);
    Serial.println(val); // read input value
    if (val == LOW) { // check if the input is HIGH (button released)
        digitalWrite(D2, HIGH); // turn LED OFF
        delay(2000);
        digitalWrite(D2, LOW);

        thing.handle();
        thing.call_endpoint("rhin1998");
        delay(5000);
        // digitalWrite(inPin, HIGH);
    } else {
        digitalWrite(D2, LOW); // turn LED ON
    }
}
```

Future scope:

There is a lot of scope to this current project. Some of them are:

- 1) The current Node MCU can be interface with a GSM board and message response on triggering is possible
- 2) The Node MCU can be connected to a GPS module so that the location of panic can also be sent. In this case the project can come under both healthcare and security IoT divisions.

Reference:

Udemy – <https://www.udemy.com>

Thingier.io - <https://www.thingier.io>

Arduino - <https://www.arduino.cc>