

Panic Alarm System for elderly

Introduction

This project is about making a hand mounted panic alarm system for elderly. The device has a Button that sends an alert alarm email to the receiving email whenever the button is pressed, indicating the Danger to the family members & an led light is turned on to indicate the message is sent. It uses ESP32 microcontroller as hardware. Thinger. io as a cloud platform, Arduino IDE as a software.

Requirements:

1. Hardware

- ESP32 Microcontroller
- LED
- Button
- PCB or Perfboard
- 3 x 1.5 Volts battery
- Jumper Wires

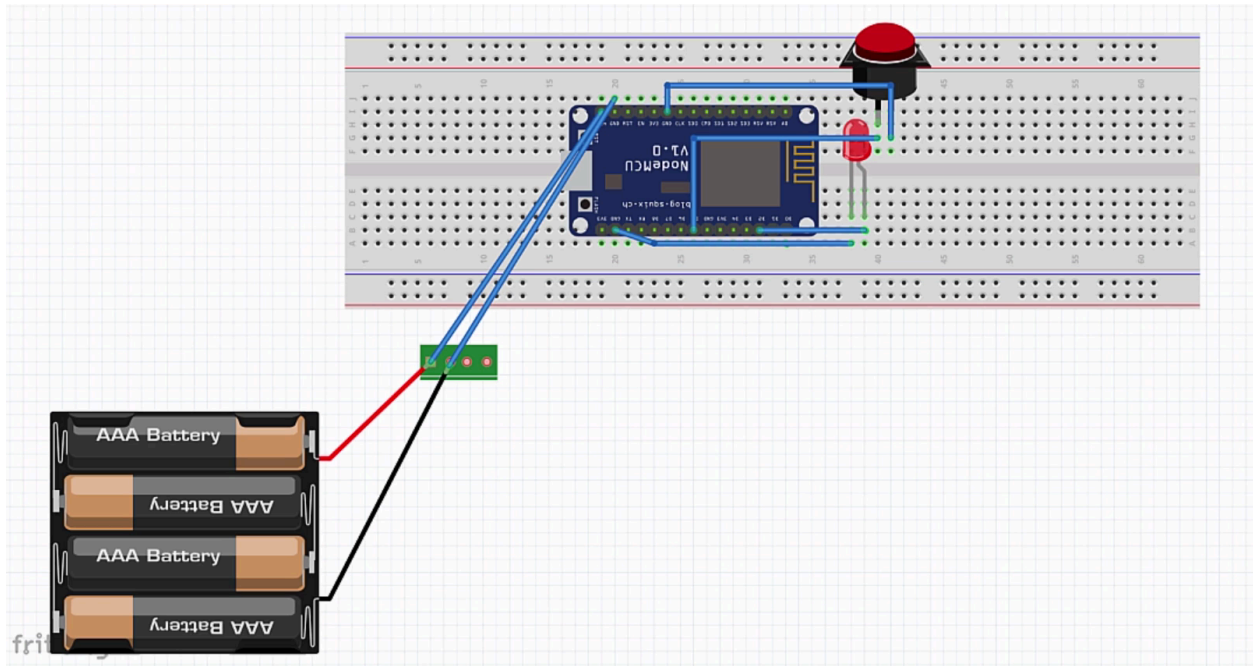
2. Software

- Arduino IDE

3. Cloud Platforms

- Thinger. io

Circuit Diagram



Thingier . io Cloud platform

Do not forget to add the Trigger & email endpoint in cloud service

The screenshot shows the 'Add Endpoint' form in the Thingier.io Cloud platform. The form includes the following fields:

- Endpoint Identifier @: email_gmail
- Endpoint Description @: gmail
- Endpoint Type @: Email
- Email Address: junaid.linab@gmail.com
- Email Subject: Hi

Code:

```
#include <SPI.h>
#include <ESP8266WiFi.h>
#include <ThingyWifi.h>

ThingyWifi thing("junaid", "nm1", "1234567");
int pushPin = 12; // Pin 6 on Node MCU //the digital pin connected to the PIR sensor's output
int ledPin = 4; // Pin 2 on NodeMCU
int val = 0; // variable for reading the pin status

void setup() {

    pinMode(ledPin, OUTPUT); // declare LED as output
    pinMode(pushPin, INPUT_PULLUP); // declare pushbutton as input
    Serial.begin(9600);

    //connecting to WIFI
    thing.add_wifi("NETGEAR45", "curlybird210");
    Serial.println("entering the gates");
}

void loop(){

    val = digitalRead(pushPin);
    Serial.println(val); // read input value
    if (val == LOW) { // check if the input is HIGH (button released)
        digitalWrite(ledPin, HIGH); // turn LED OFF
        delay(1000);
        digitalWrite(ledPin, LOW);

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