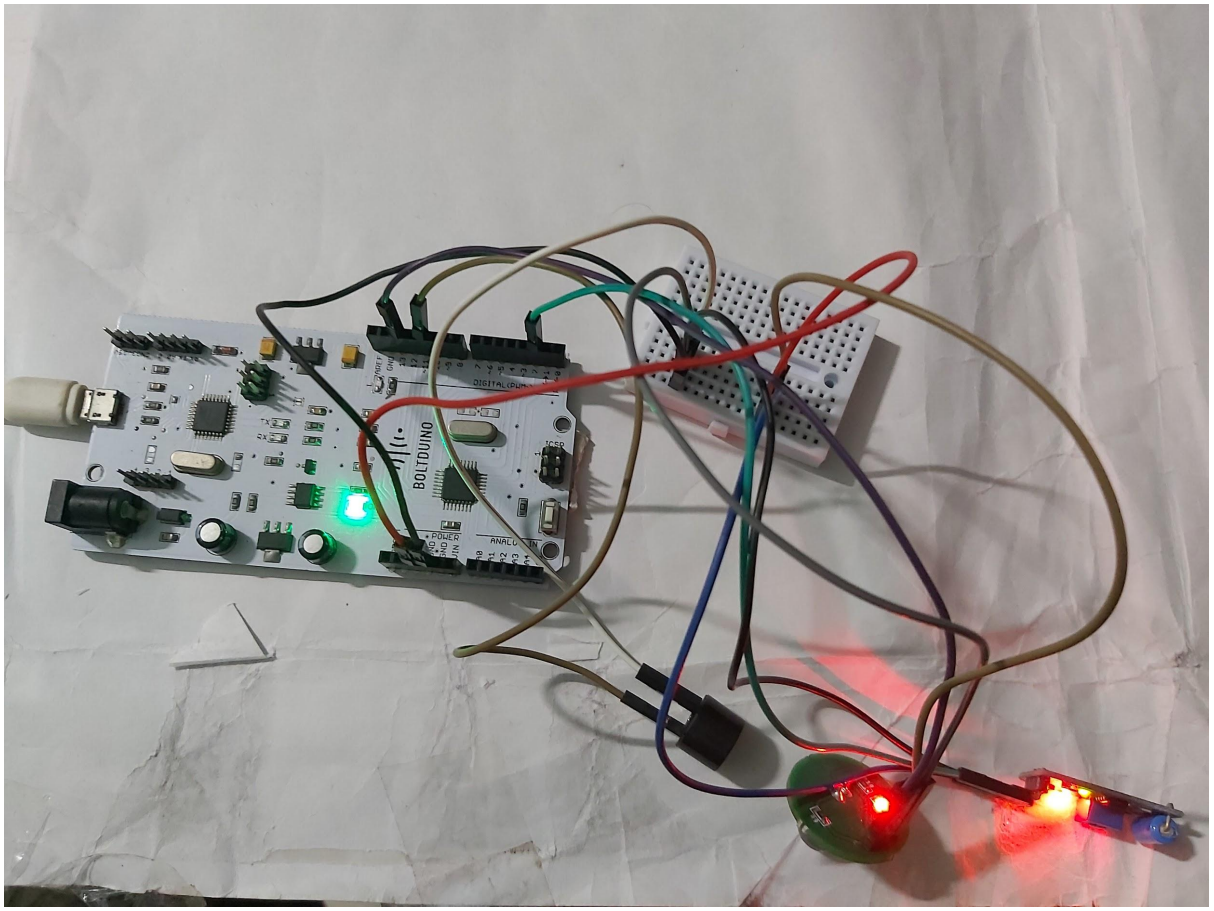
Landslide Detection



Landslide detection system using Arduino. This project is capable of monitoring the earth vibration and gives the output in the form of light signal and buzzer sound.

THINGS USED IN THE PROJECT
HARDWARE

- Boltduino (Arduino)
- BreadBoard
- Some wires M2M, M2F
- Vibration Sensor
- LED Module
- Buzzer
- USB cable

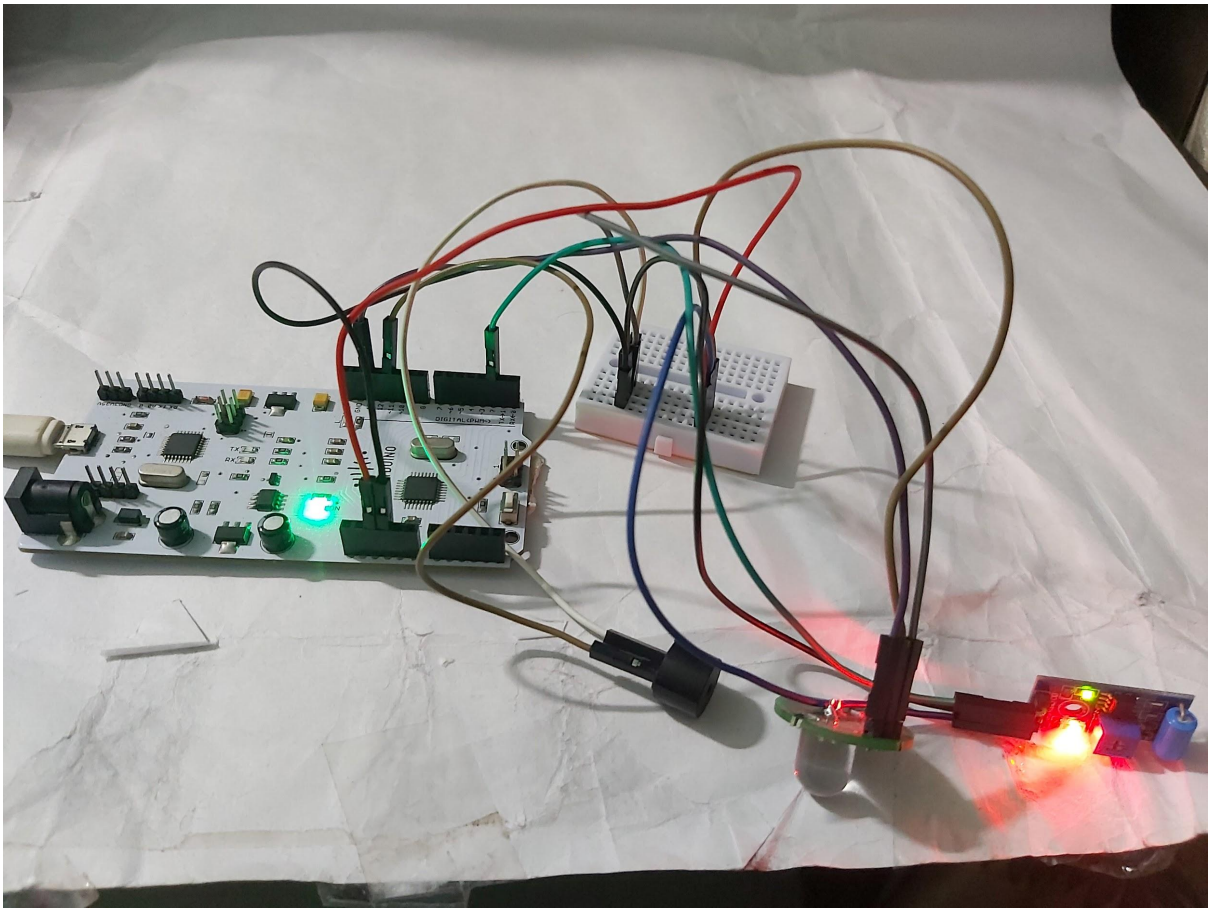
SOFTWARE/ APP / ONLINE SERVICES

- Arduino IDE

HARDWARE SETUP

1) Connect the Vibration Sensor to the Boltduino(Arduino) via BreadBoard, DO pin to Pin no. 2 of Arduino and VCC & GND to 5v and ground pin of Arduino respectively.

2) Connect the LED module to Boltduino, LED pin to pin no. 13, and VCC & GND to 5v and ground pin of Arduino respectively.
3) Connect the Buzzer, to pin no. 11. and other to GND pin of Boltduino.
4) Place this autonomous system on a soil where vibration can be sensed.
5) Our system is ready to code.



SOFTWARE SETUP

1) Open Arduino IDE and select Board as Arduino UNO and Port as per your hardware configuration.

SOFTWARE PROGRAMMING / CODE

1) Open a new sketch, name it as **Landslide_Detection** and Code as shown below.

```
int vib_pin=2;
int led_pin=13;
int buz_pin=11;

void setup() {
  // put your setup code here, to run once:
  pinMode(vib_pin,INPUT);
  pinMode(led_pin,OUTPUT);
  pinMode(buz_pin,OUTPUT);
```

```
}

void loop() {
  // put your main code here, to run repeatedly:
  int val;
  val=digitalRead(vib_pin);
  if(val==1)
  {
    for (int i = 1; i <= 5; i++){
      digitalWrite(led_pin,LOW);
      digitalWrite(buz_pin,LOW);
      delay(100);
      digitalWrite(led_pin,HIGH);
      digitalWrite(buz_pin,HIGH);
      delay(100);
      }
   }
   else
   digitalWrite(led_pin,LOW);
   digitalWrite(buz_pin,LOW);
}
```

OUTPUT/ VIDEO

https://youtu.be/JMZU_5O6P_Q