Home Security System

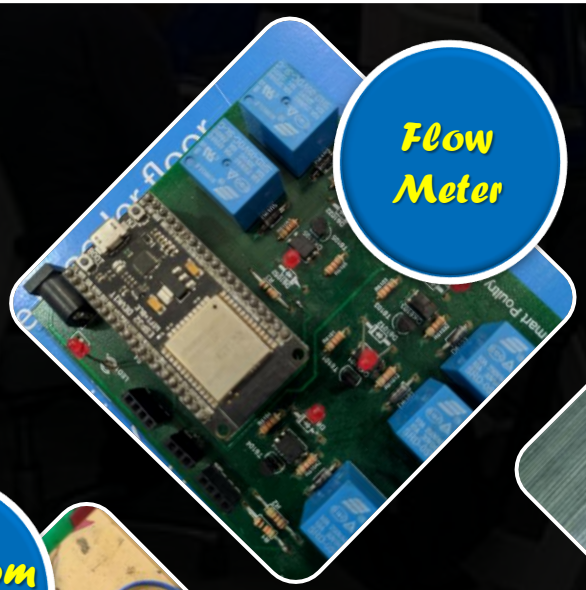
- Node MCU, Ultrasonic Sensor, PIR Sensor

Industrial Tour

Our inspection to **Datasoft** Software Company on **11-03-19** was the most worthy opportunity for us.

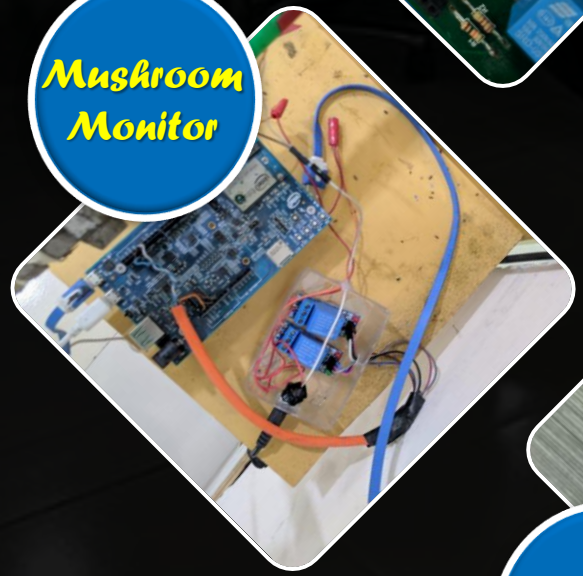
DataSoft
Changing Lifestyle

Some Projects



Flow Meter

Boiler Monitor



Mushroom Monitor

Accelero-meter

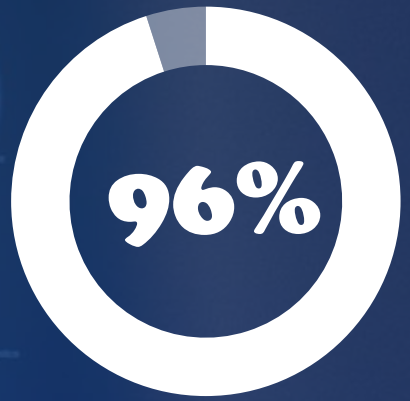
About

This project deals with the design & development of a theft control system for home, which is being used to prevent/control any theft attempt.

Security

Home Security

In Dhaka 96% people are depended on traditional door looker systems.



Smart Security

By using our product under 1500tk and using 10/20tk of electricity they can get a smart secure house.
For this low cost & reliability they will buy our product and secure their house easily.

Using our security

If they will use 1% our smart security for their house we can cover 2,880 house

03%

BANGLADESH BUREAU OF STATISTICS (BBS)

Components

Buzzer is an audio signalling device

Buzzer

Measuring speed or direction and cal culates the speed from distances

Ultrasonic Sensor

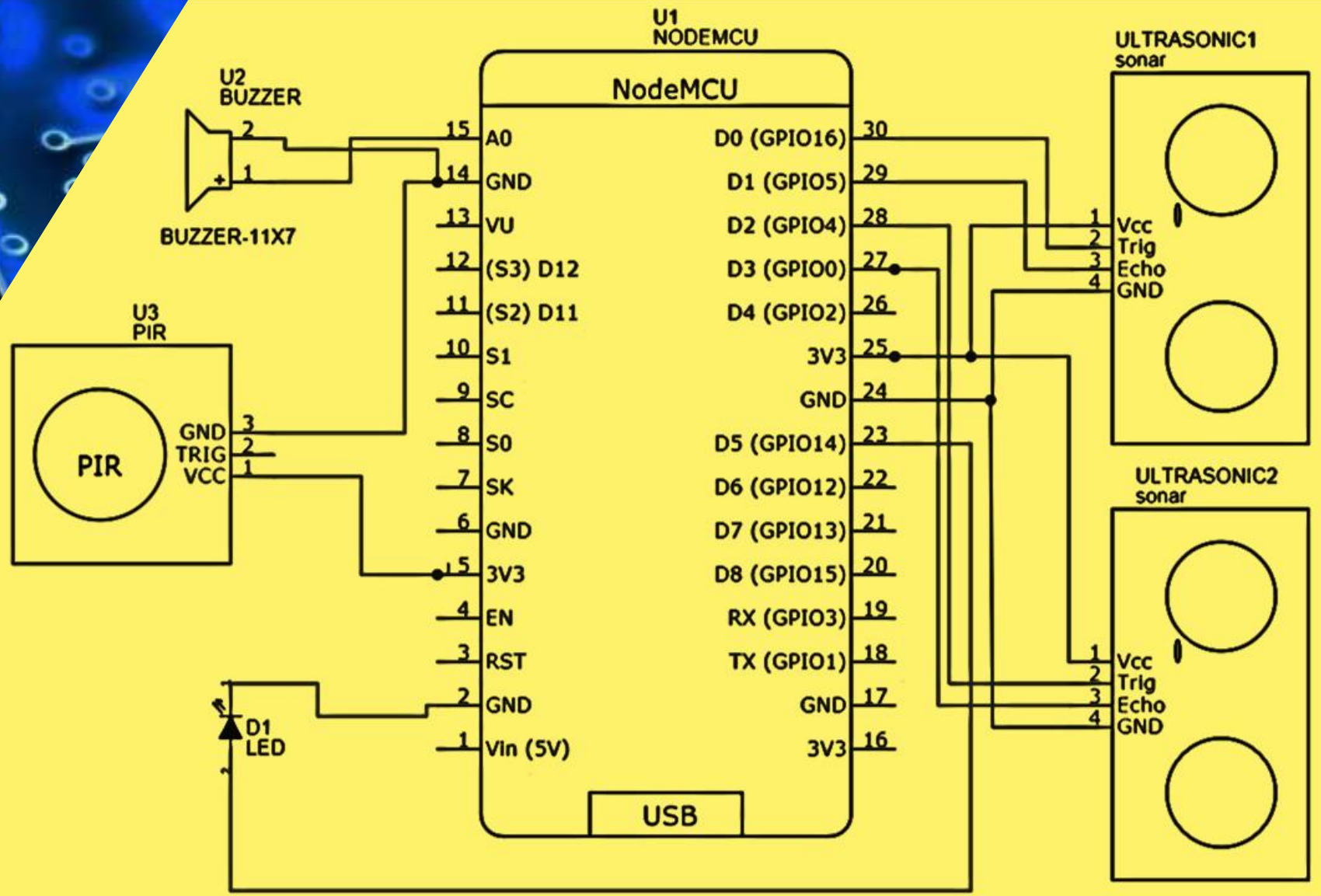
Measures infrared (IR) light radiating from objects in its field of view

Passive Infrared

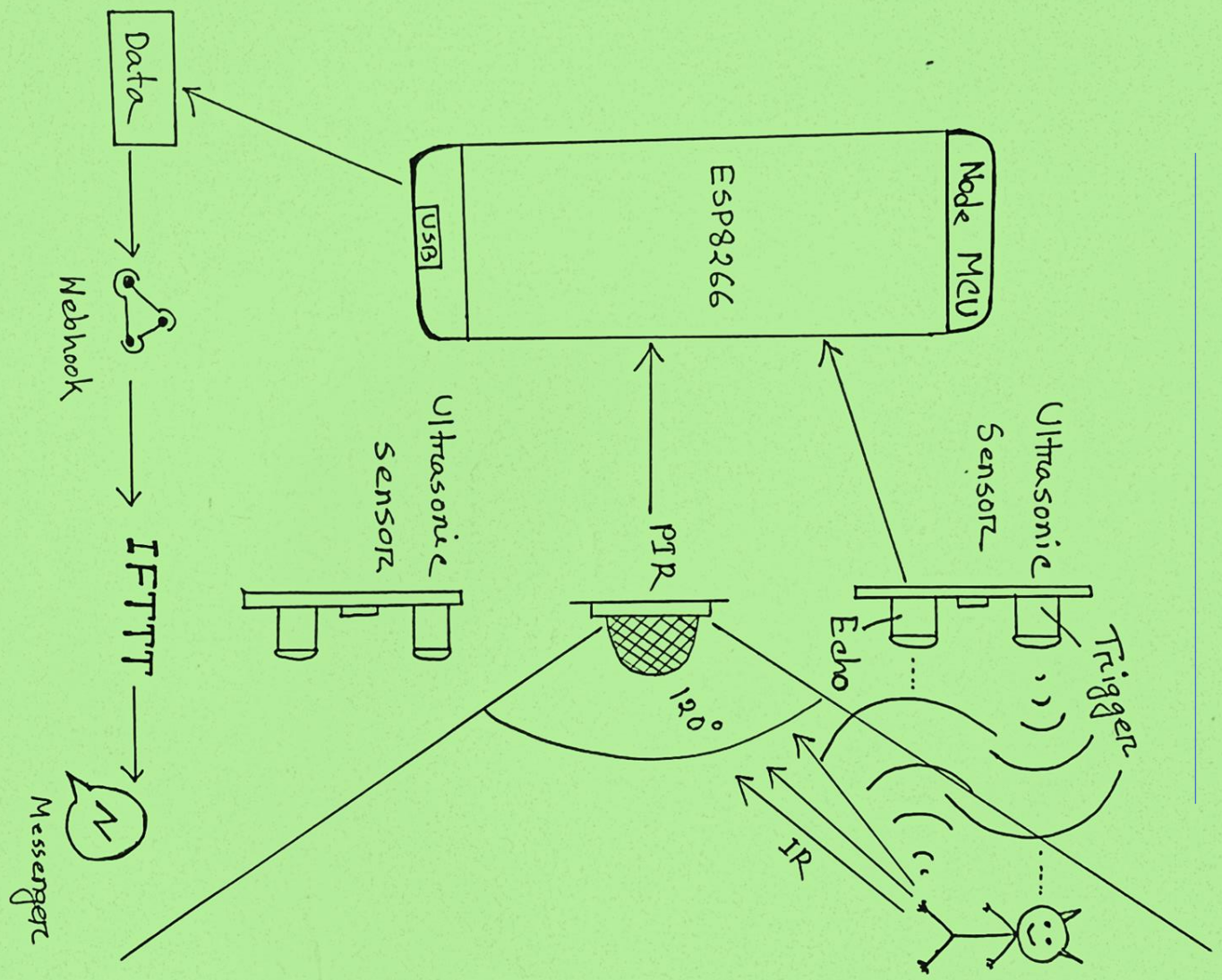
Runs on the ESP8266 Wi-Fi So C from Espressif Systems

Node MCU

Circuit Diagram

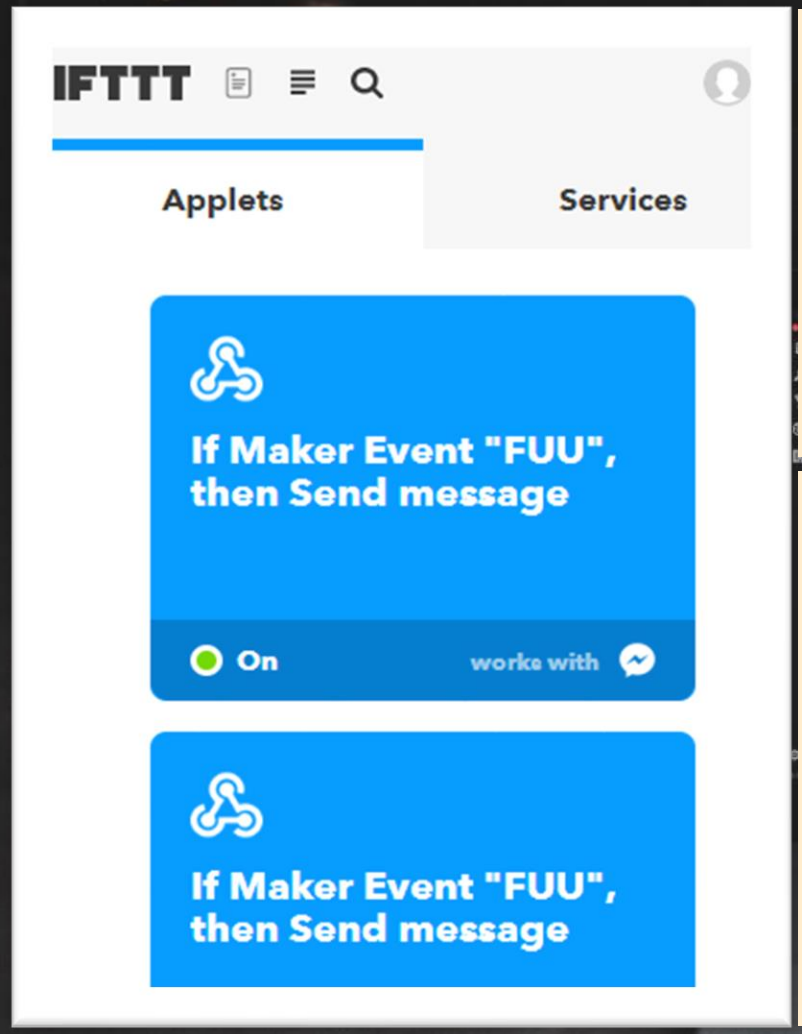


Working Procedures



After Ultrasonic sensor and PIR sensor colleting any movements of thief it send data to Node MCU.
Node MCU process data and send to Webhook interface.
Webhook send data to users mobile through social app like Facebook.

Arduino Code




```
void loop()
{
digitalWrite(trig1, LOW);
   delayMicroseconds(2);
   digitalWrite(trig1, HIGH);
   delayMicroseconds(10);
   digitalWrite(trig1, LOW);
   tim1 = pulseIn(echo1,HIGH);
   dis1= tim1*0.034/2;
```

```
if (client.connect("maker.ifttt.com",80)) {
MakerIFTTT_Key ="rz8_xH-eh26LUewXOE6VJLDCVpKHHnTGOQX-NtNMj2";
MakerIFTTT_Event ="FUU";
p = post_rqst;
 json_start = p;
 p = append_str(p, "{\"value1\":\"");
 p = append_str(p, "Nodemcu");
 p = append_str(p, "\",\"value2\":\"");
 p = append_str(p, "Hi .........Emergency!!!");
 p = append_str(p, "\",\"value3\":\"");
 p = append_str(p, "transpassing is detected.");
 p = append_str(p, "\"}");
```

Why better?

Light

Dust

Smoke

Material

Color

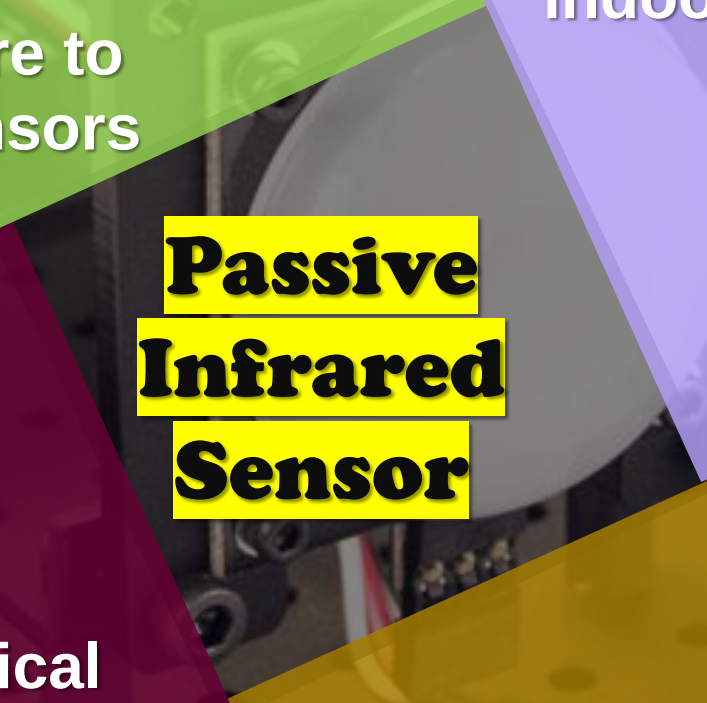
Ultrasonic sensors

are superior to infrared sensors because they aren't affected by smoke or black materials, however, soft materials which don't reflect the sonar (ultrasonic) waves very well may cause issues. It's not a perfect system, but it's good and reliable.

Why better?

Detects motion reliably in indoors as well as in day or dark

They are cheaper compare to microwave sensors



Passive Infrared Sensor

They are good for electrical applications used in smaller and compact premises.

It consumes less energy (0.8W to 1.0W) compare to microwave sensor

User's Benefit

Durable
It can give correct information in any weather

Money
Low cost

Design
Economical design of this system is not so hard and nice.

Power
Low Power Requirement.

Remote Access
The status of various devices can be controlled from long distances.

Control
The system can be easily implemented in homes.

Thank You

Questions?