

TITLE: BURGLER DETECTION SYSTEM

GROUP NO: 18

TEAM MEMBERS:

1. Abhyanth.P

2. Rakshit R.K

3. Bharath N

4. Arun Kulkarni

Problem Statement:

Write an Embedded C program for interfacing Infrared Sensors with Arduino and its application scenario.

Problem Solution:

We have used IR sensor to implement burglar detection system where we use 2 IR sensors one which is outside the door (IR-1) and one present inside the door (IR-2)

Objective:

When movement is detected in the sensor depending on which sensor we either get an E-mail or message to our phone so that we can be alerted and take necessary steps

Working:

We are using 2 IR sensors one place outside the house close to the door(IR-1) and one inside the house close to the door(IR-2) and when movement is detected this is passed on to the cloud and its processed there and we get the response

We are using Things speak cloud to collect data and process it and IFTTT to give us the desired response

URL for Things speak channel:

<https://thingspeak.com/channels/1223049>

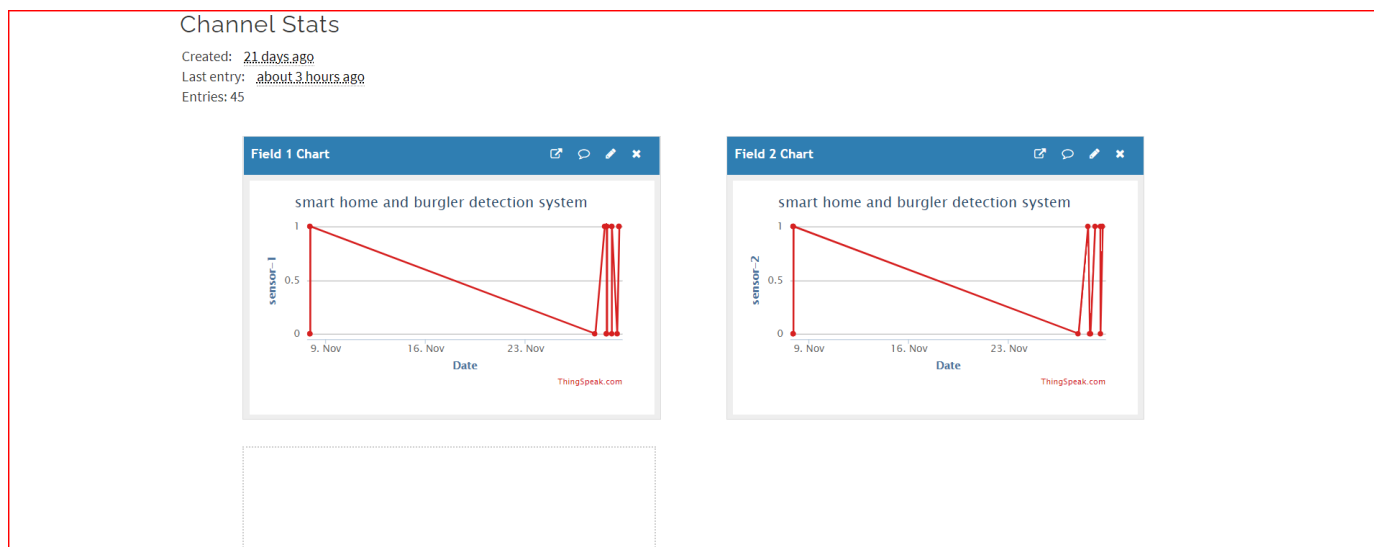
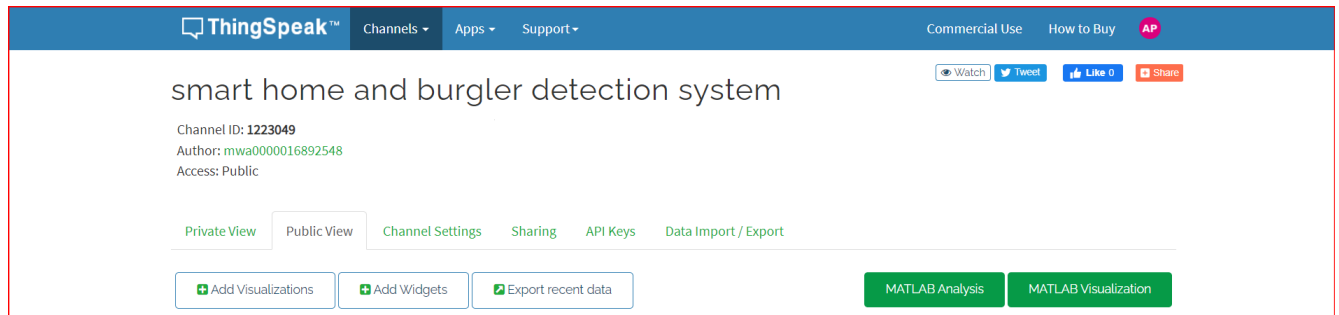
URL for the IFTTT website:

<https://ifttt.com/home>

Cloud description: I have created 2 fields in the cloud for the 2 IR sensors and 2 triggers which is activated when the required condition is met the triggers the triggers are

1. To send an alert email
2. to send an alert message

The channel we created



The triggers

Name:	trigg_1
API Key:	D10ED50545SMY16S
	<button>Regenerate API Key</button>
URL:	https://maker.ifttt.com/trigger/Emergency/with/key/gEPQVZW3ESZGin3y7MQbS1eIH7otK8O2VQds v1S1SK-
HTTP Auth Username:	
HTTP Auth Password:	
Method:	GET
Content Type:	
HTTP Version:	1.1
Host:	
Headers:	
Body:	
Parse String:	
Created:	2020-11-28 6:58 pm

Name:	trigg_2
API Key:	PIA7J3POXBYSMVQ2
	<button>Regenerate API Key</button>
URL:	https://maker.ifttt.com/trigger/Emergency2/with/key/gEPQVZW3ESZGin3y7MQbS1eIH7otK8O2VQd sv1S1SK-
HTTP Auth Username:	
HTTP Auth Password:	
Method:	GET
Content Type:	
HTTP Version:	1.1
Host:	
Headers:	
Body:	
Parse String:	
Created:	2020-11-28 7:16 pm

Now we are using the write API key to send data to the cloud

https://api.thingspeak.com/update?api_key=EG23Y36D9LLC1KRJ&field1=0

Or

https://api.thingspeak.com/update?api_key=EG23Y36D9LLC1KRJ&field2=0

When we get movement in IR-1 then 1 is sent to the cloud and field-1 gets updated and the trig-1 gets activated and we receive an alert email

When we get movement in IR-2 then 1 is sent to the cloud and field-2 gets updated and the trig-2 gets activated and we receive an alert message

To communicate with the Wi-Fi module we are using the AT commands

Now when the triggers are activated the control is passed to the IFTTT and there either the email applet or the message applet is triggered

This project can be used with image processing to see who is in front of the door and recognize if he is a threat or not