# IoT Security Door Lock System

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**Components used** :-

ESP8266 NodeMCU

IR sensor

Breadboard

Jumper Wires

**Software used :-**

MIT App inventor

Thingspeak Server (For cloud control)

Arduino IDE (for programming hardware)

**Other Devices used :-**

A mobile phone

**Connectivity :-**

Wifi

Internet

**Experimentation** ---

The flow of the project goes like this-

1)- A server has been created in Thingspeak account to monitor the security of the door (on cloud)

*Link to the thingspeak server –*

https://thingspeak.com/channels/1310019/private_show

2)- The notifications regarding door security should be received on a mobile device with the help of an app. So MIT App Inventor is used to design a basic app which would send notifications on our mobile device if the values on the server are being updated.

N.B- A notification library has been added from an external source with the existing libraries in the MIT App Inventor .

*The link to the app link –*

http://ai2.appinventor.mit.edu/#6496963161096192

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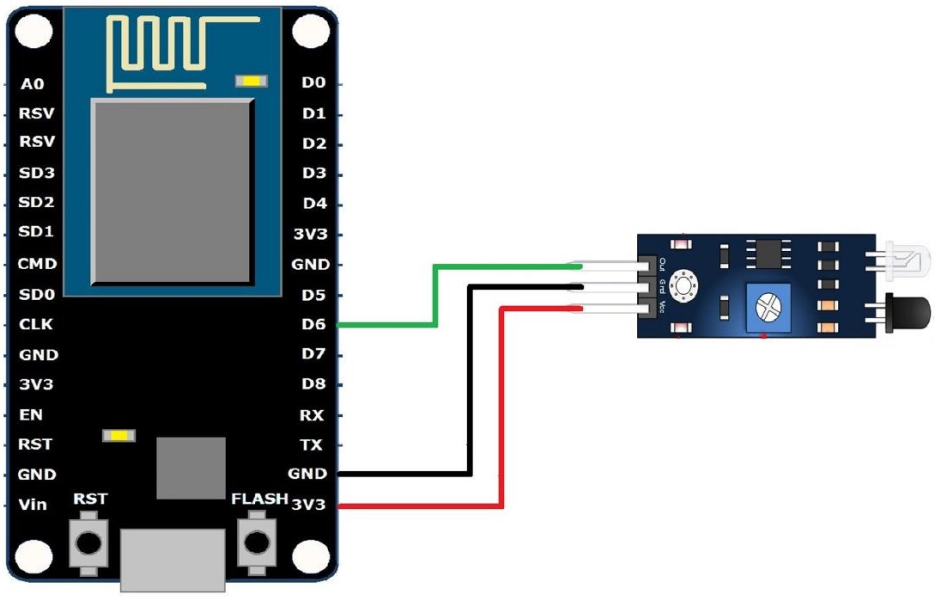
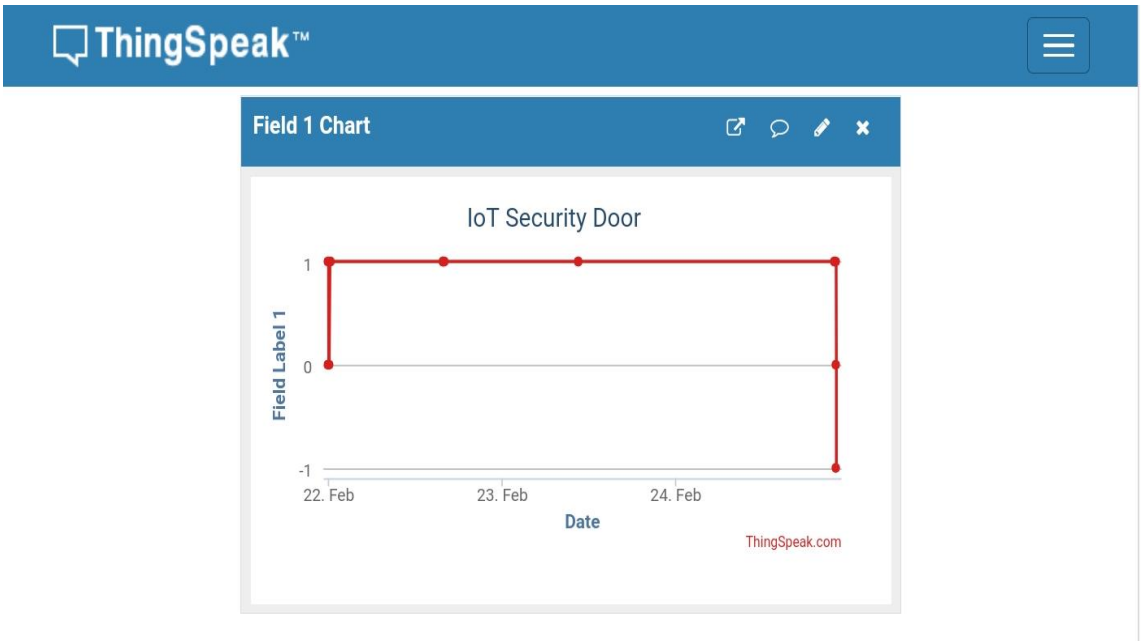
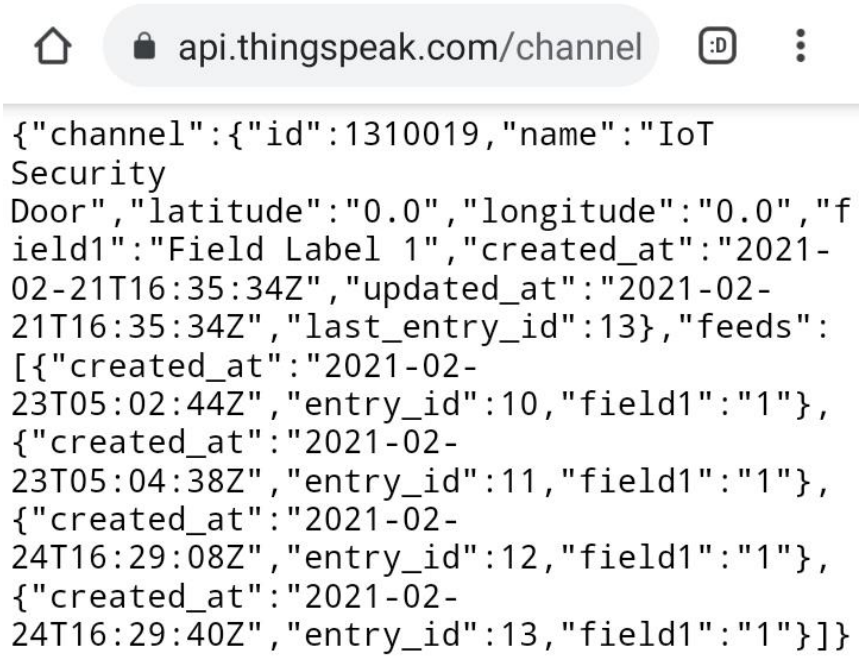
3)- A basic circuit diagram has been constructed to connect NodeMCU with an IR sensor with the help of a breadboard and jumper wires.

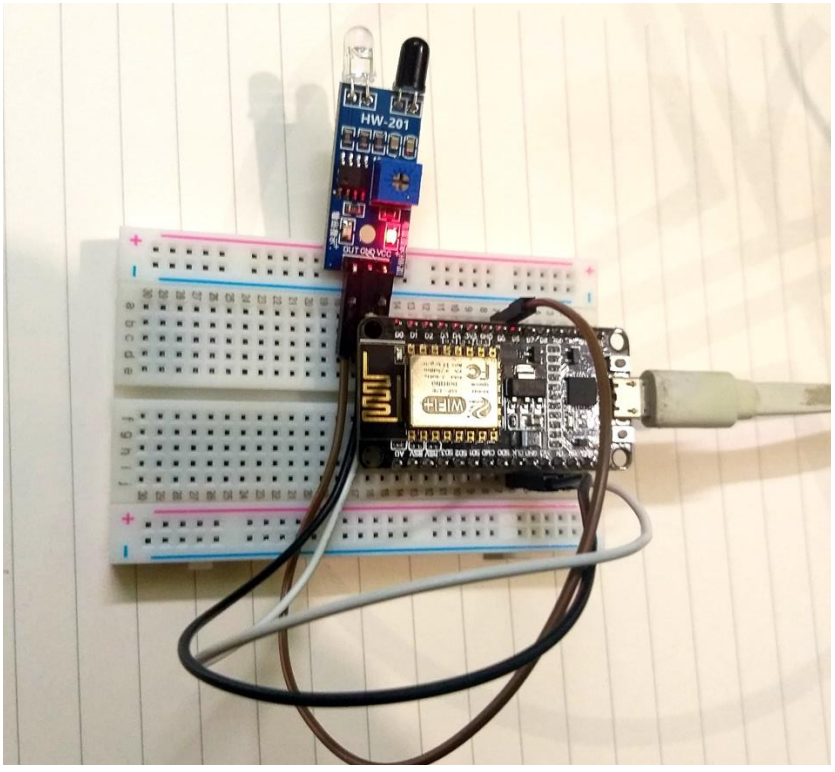




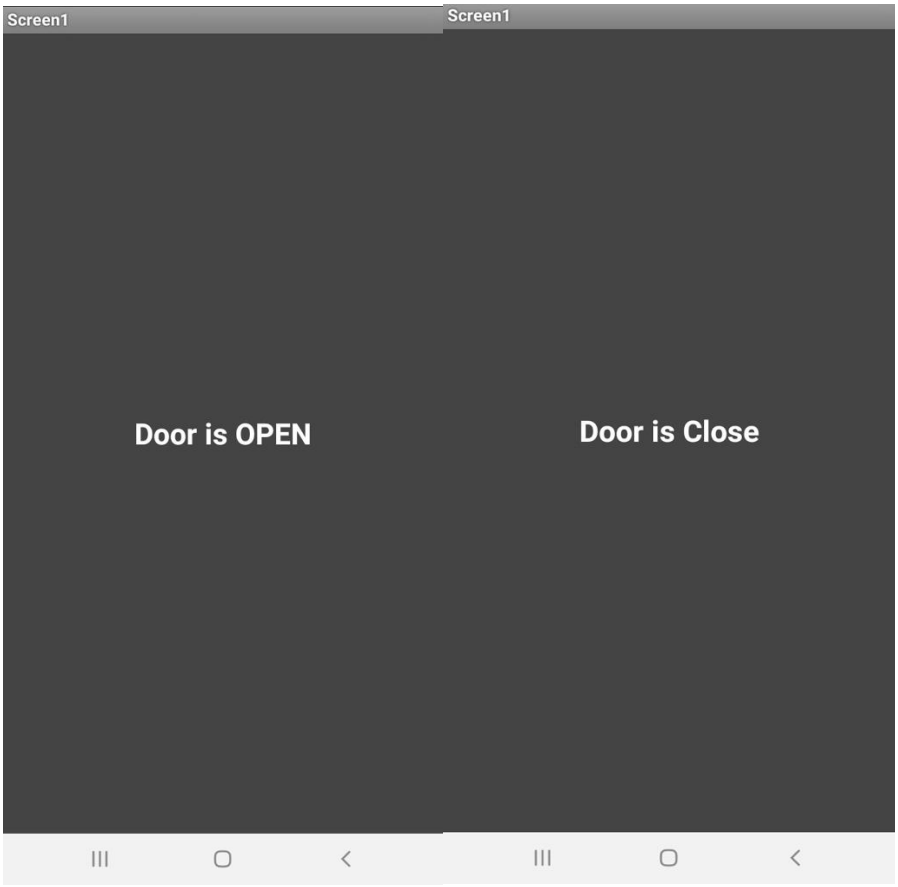

4)- Code for NodeMCU has been written and finally build into the module.

5)- The IoT Security Door module is ready to be installed and put to use.



**Conclusion :-**

After the module is installed with a door lock and connected to internet, approximation of objects near the IR sensor sends notifications on ones' mobile app and changes data on Thingspeak server. This is how users can monitor their door locks from anywhere across the globe and also check for unwanted attentions at their door step.




**This project has been constructed as a minor project stated as '*Design a mobile application to send data to thingspeak.*" as assigned by **Smartknower** in an IoT internship program.