

Experiment 3.2

Class:-26B

Group No:-05

Group Members Details

NAME	UID
<u>RAJDEEP JAISWAL</u>	<u>20BCS2761</u>
<u>ADARSH SHARMA</u>	<u>20BCS2762</u>
<u>MOHIM ROY</u>	<u>20BCS2804</u>
<u>ASHUTOSH NANDI</u>	<u>20BCS2831</u>
<u>SOUMYA SHUBHAM NAYAK</u>	<u>20BCS2781</u>

Task:

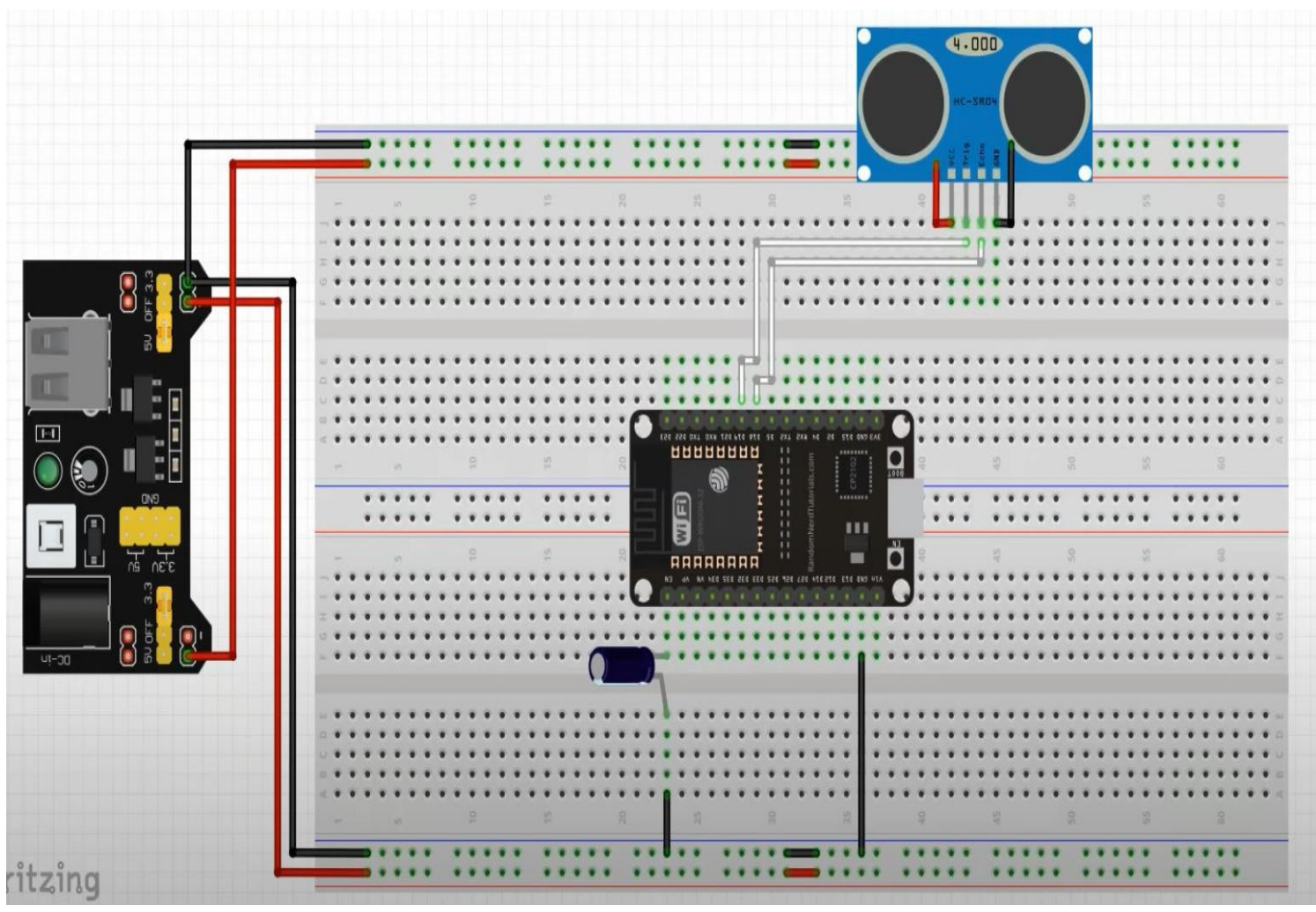
Develop an IoT based intruder detection and alert system.

Requirements:

Following are the requirements needed for the experiment:

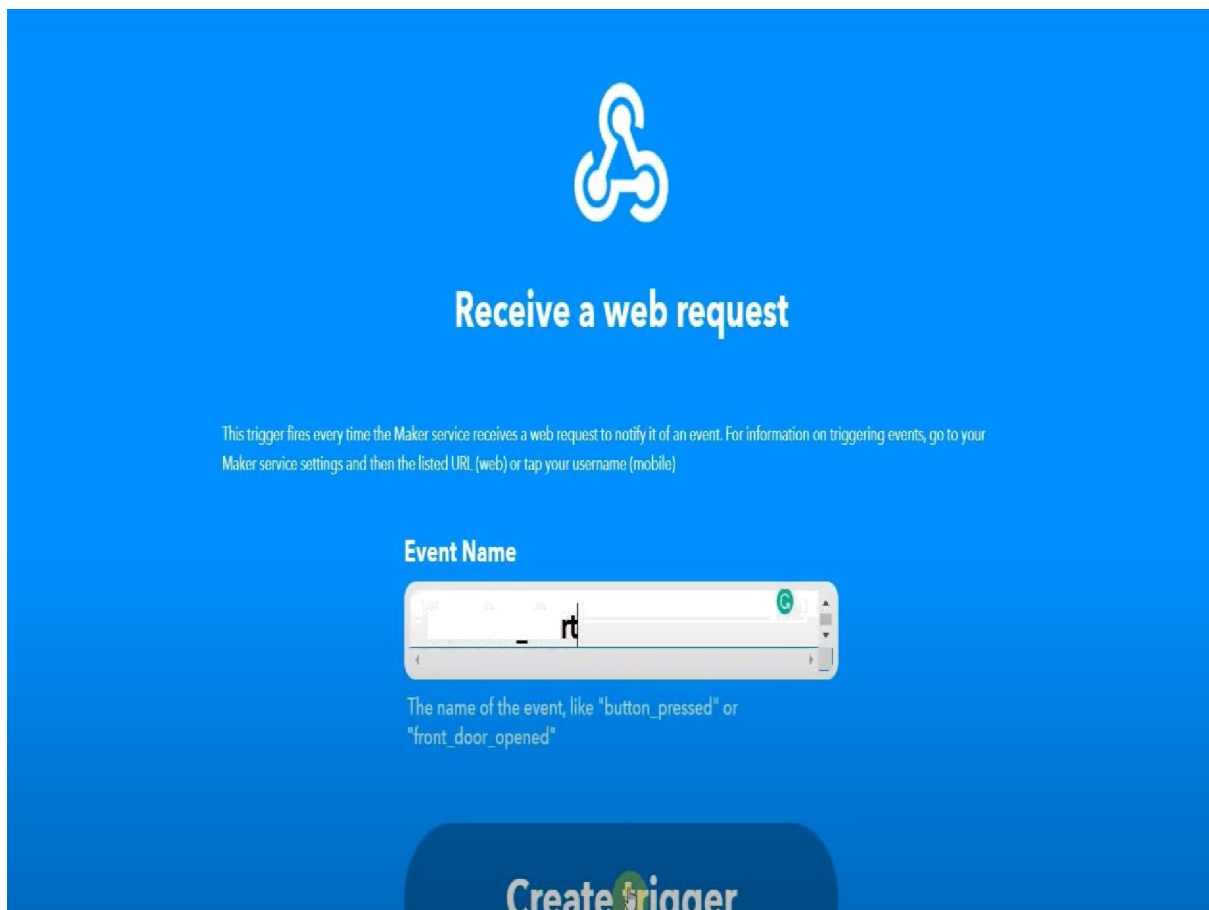
1. PC with Arduino
2. Connecting Wires
3. Breadboard
4. DOIT ESP32 DEVKIT V1
5. 10uF Electrolytic Capacitor
6. Wire Clipper
7. USB Type A to Micro USB Cable
8. DC 5V Power Supply
9. DC 3.3V Power Supply

Circuit Diagram




Choose a service

Q web



The image shows a configuration screen for the 'Webhooks' trigger. At the top is the Webhooks icon. Below it is the title 'Receive a web request'. A paragraph of text explains: 'This trigger fires every time the Maker service receives a web request to notify it of an event. For information on triggering events, go to your Maker service settings and then the listed URL (web) or tap your username (mobile)'. Below this is a section titled 'Event Name' with a text input field containing the text 'rt'. A small green checkmark icon is visible on the right side of the input field. Below the input field is a note: 'The name of the event, like "button_pressed" or "front_door_opened"'. At the bottom of the screen is a large blue button with the text 'Create trigger'.

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Send a notification from the IFTTT app

This action will send a notification to your devices from the IFTTT app.



Message

```
Intruder detected on ((OccurredAt))  
at Home Front Door.
```

Add ingredient

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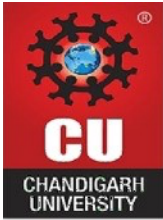
Review and finish



Applet Title

```
IfMakerEvent intruder_alert", then Send a  
notification from the IFTTT app
```

by prashantkmr752 76/140



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IFTTT

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Settings



If Maker Event "intruder_alert", then Send a notification from the IFTTT app

by prashantkmr752

Connected

```

1 /*
2   Board: DOIT ESP32 DEVKIT V1
3 */
4 #include <File.h>
5 #include <IFTTT & iHool.h>
6
7 #define IFTTSSID "Joker" // four IFTT mane
8 #define PASSWOR "dokerlenda" // rout IFTT Password
9
10 #define IFTT_API_KEY "itp_xfiscnncHslARKll9zrSRsIz 34q_21PiltqkGT"
11 #define IFTT_TRIGGER "intruder_alert"
12
13 #define TRIGGER_PIN 18
14 #define IFTT_PIN 19
15
16 #define IFTT_INTERVAL 100 // cc
17
18 #include <IFTTT & iHool.h>
19 IFTTT iFTT(IFTT_API_KEY, IFTT_TRIGGER);
20
21 void setup() {
22   pinMode(IFTT_PIN, OUTPUT);
23   digitalWrite(IFTT_PIN, LOW);
24 }
25
26 void loop() {
27   if (digitalRead(IFTT_PIN) == HIGH) {
28     iFTT.sendEvent(IFTT_TRIGGER);
29     digitalWrite(IFTT_PIN, LOW);
30     delay(1000);
31   }
32 }

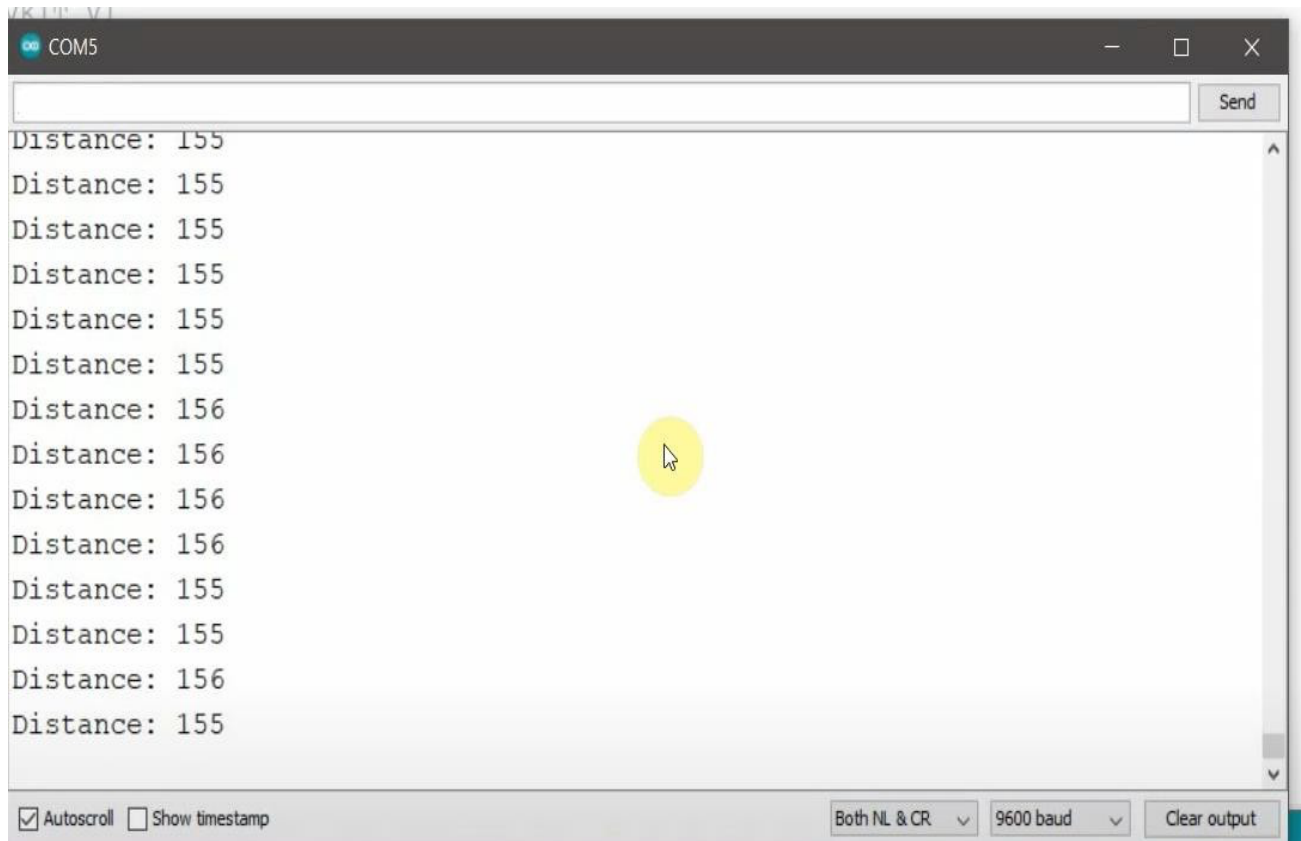
```

Uploading

```

Compressed 8192 bytes to 47...
Wrote 8192 bytes (47 compressed) at 0x0000e000 in 0.0 seconds (effective 3276.8 kbit/s)...
Hash of data verified.
Compressed 15856 bytes to 10276...
Wrote 15856 bytes (10276 compressed) at 0x00001000 in 0.1 seconds (effective 975.8 kbit/s)...
Hash of data verified.
Compressed 856980 bytes to 485119...

```



The screenshot shows a serial terminal window titled 'COM5'. The window contains a list of distance readings: 'Distance: 155' (repeated 13 times) and 'Distance: 156' (repeated 3 times). The window has a 'Send' button at the top right and a 'Clear output' button at the bottom right. The bottom status bar shows 'Autoscroll' checked, 'Show timestamp' unchecked, 'Both NL & CR' selected, and '9600 baud' selected.

Outcome:

- Establish an interface between embedded IoT system and the physical world through sensors, to read the state of the world, and actuators, to change the state of the world.
- Establish connectivity of IoT modules with cloud for sensor data collection and management
- Creating new applets on IFTTT(If This Then That).
- Learning functions and usage of IFTTT.