Realtek RTL8195AM/RTL8710AF

IFTTT Example Guide

v 1.0

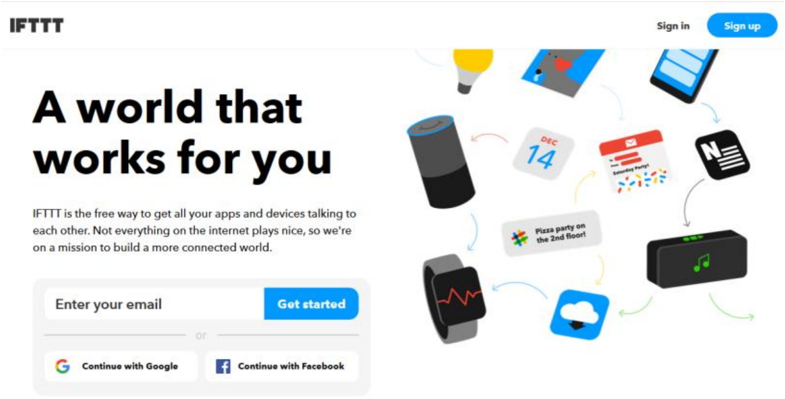
Table of Contents

1 Introduction to IFTTT

If This Then That, also known as IFTTT, is a free web-based service to create chains of simple conditional statements, called applets. An applet is triggered by changes that occur within other web services such as Gmail, Facebook, Telegram, Instagram, Pinterest etc. For example, an applet may send an e-mail message if the user tweets using a hashtag, or copy a photo on Facebook to a user's archive if someone tags a user in a photo.

2 Setting up an IFTTT account.

In order to be able to use the IFTTT service, it is necessary to make an account at https://ifttt.com/



A world that works for you

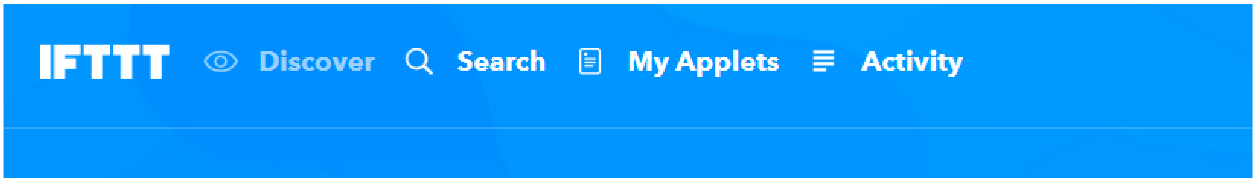
IFTTT is the free way to get all your apps and devices talking to each other. Not everything on the internet plays nice, so we're on a mission to build a more connected world.

Create an account. Once logged in, the home page of IFTTT is visible. There are many cloud services and online services that are integrated with the IFTTT platform.

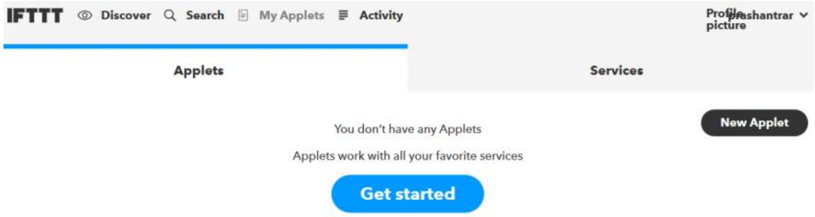
3 Creating the applet for Ameba

In order to run this example, we use the HTTP POST feature of the ameba to post to a simple webhook service that is received by the IFTTT platform, which can in turn be used to trigger a response. In this example, the response that we have used is to send an Email. Hence when the Ameba board posts the HTTP request, an email is sent to the recipient specified in the IFTTT applet.

➔ Click on the “My Applets” option from the home page after logging in



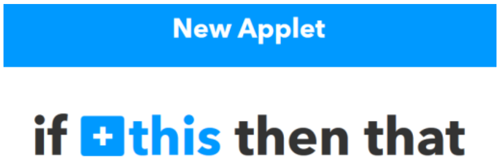
➔ Once in the applets page, select “New Applet”



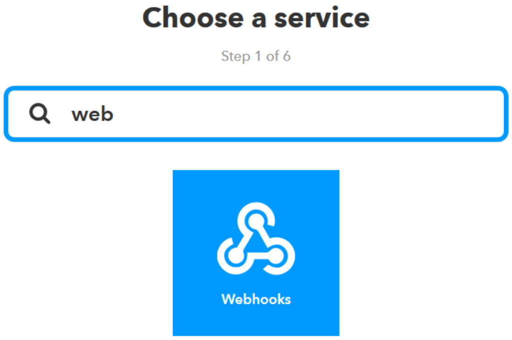
You don't have any Applets

Applets work with all your favorite services

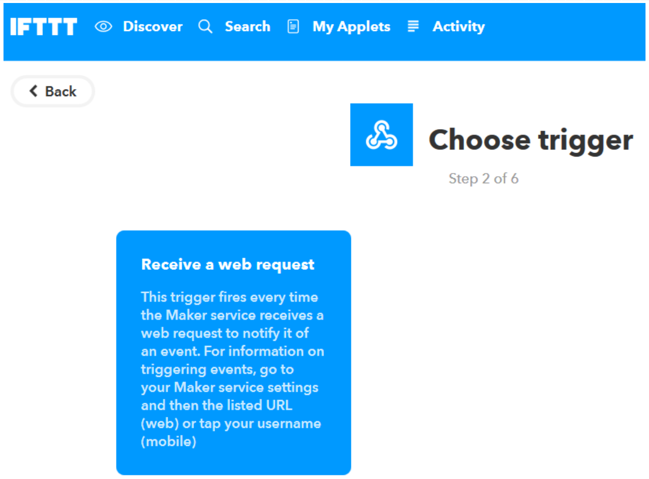
➔ Once in the New Applet page, click on the “this” option as shown below in order to select the trigger.



➔ Once inside the option, choose the “Webhooks” service from the list of services as shown below. You can use the search bar to find the service.



➔ Once you choose the service, it shows you the triggers available with the service. In case of Webhooks, there is only one trigger that the service provides which is “Receive a web request”.



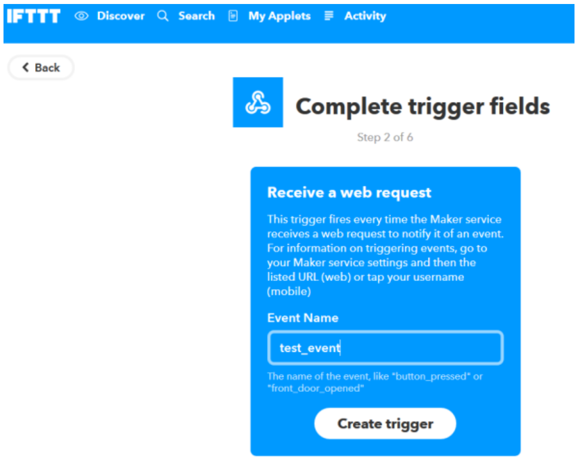
Choose trigger

Step 2 of 6

Receive a web request

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)

- ➔ Select the web request by clicking on it.
- ➔ Once the “Receive a web request” is selected, an *event name* needs to be provided to identify the trigger successfully. For the demonstration of this example, the Event name is set as “test_event”.



Complete trigger fields

Step 2 of 6

Receive a web request

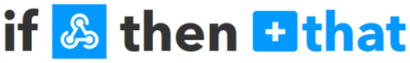
This trigger fires every time the Maker service receives a web request to notify it of an event. For information on triggering events, go to your Maker service settings and then the listed URL (web) or tap your username (mobile)

Event Name

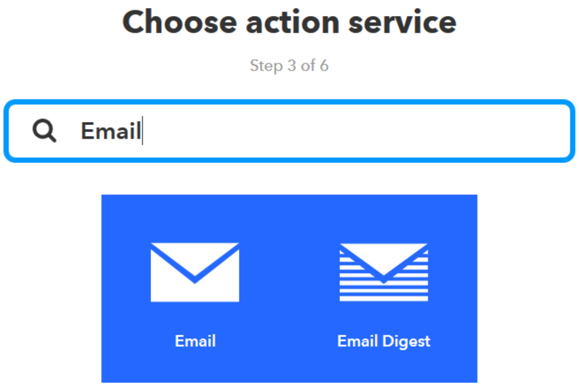
test_event

The name of the event, like "button_pressed" or "front_door_opened"

- ➔ Once the event name is set, click “Create trigger” to finish creating the trigger.
- ➔ Once the trigger is created, we move on to choosing the “That” field to create the action that needs to be taken upon receiving the trigger.



- ➔ For this example, upon receiving the Webhook trigger from Ameba, we choose the email service as the action taken in response to the trigger, and hence we choose “Email” from the list of services.

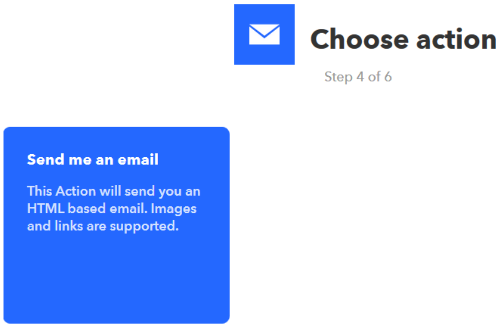


Choose action service

Step 3 of 6

Email

- ➔ Once the action service is selected, a list of actions that the service can provide are listed. In this demonstration, the Email service is capable of providing only one action -> “Send me an email” and hence we choose this action.



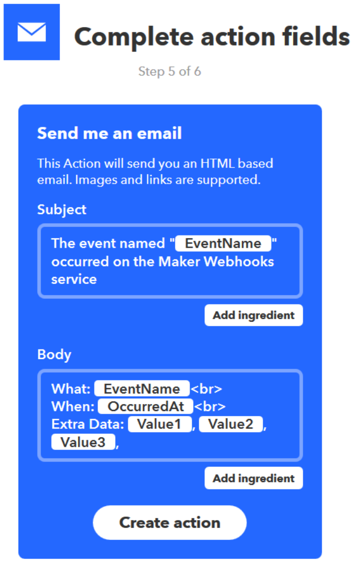
Choose action

Step 4 of 6

Send me an email

This Action will send you an HTML based email. Images and links are supported.

- ➔ Click on the “Send me an email” box
- ➔ Once you select “Send me an email”, in the next action, you can choose to edit the contents of the subject and body of the email that will be sent to you. Remain the content if you do not need to make any changes



Complete action fields

Step 5 of 6

Send me an email

This Action will send you an HTML based email. Images and links are supported.

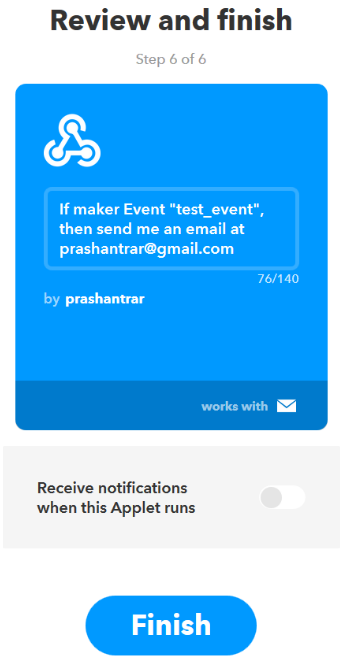
Subject

The event named " EventName " occurred on the Maker Webhooks service

Body

What: EventName
When: OccurredAt
Extra Data: Value1 , Value2 , Value3 ,

- ➔ Click “Create action” to finish creating the response. It is to be noted here that the “Email” service sends an email as response to the mail ID that is registered to create the IFTTT account.
- ➔ Once you have finished setting the trigger and response, click on “Finish” to finish creating the applet.



Review and finish

Step 6 of 6

If maker Event "test_event", then send me an email at prashantrar@gmail.com

76/140

by prashantrar

works with

Receive notifications when this Applet runs

Finish

- ➔ Once finished the applet is visible under the “My Applets” section in your IFTTT home page.

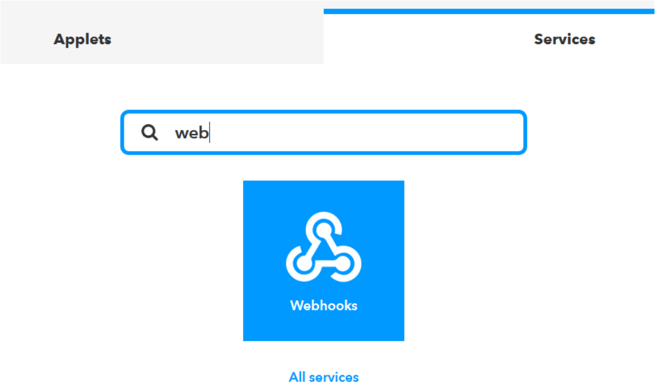
4 Programming the Ameba to post the trigger.

Once the applet is setup in the IFTTT dashboard, we need to use the example program to flash onto the board to post the HTTP request.

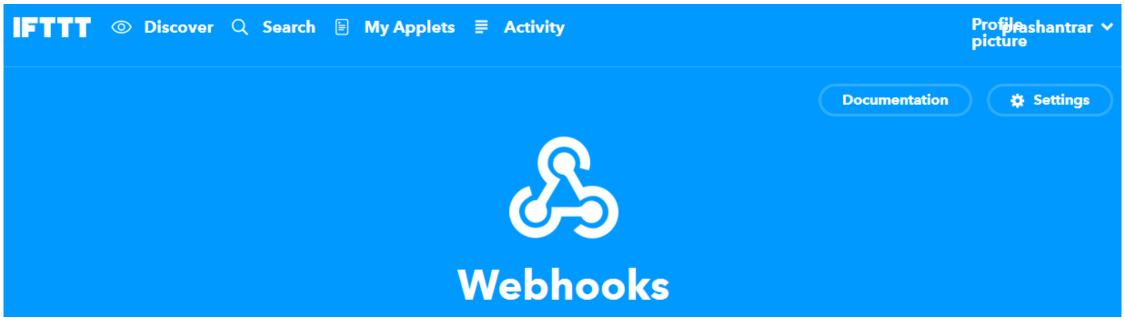
The example program is under the folder “HTTP_IFTTT_POST”

- ➔ Click on the .ino file inside the example folder provided in the class to open the example with the Arduino IDE.
- ➔ Once the program is open, 3 things need to be edited inside the code in order to make it work successfully.
  - Edit the wi-fi credentials in order to connect to the wi-fi hotspot or access point of your choice.
  - In the host name field, enter the hostname of the IFTTT service “maker.ifttt.com”

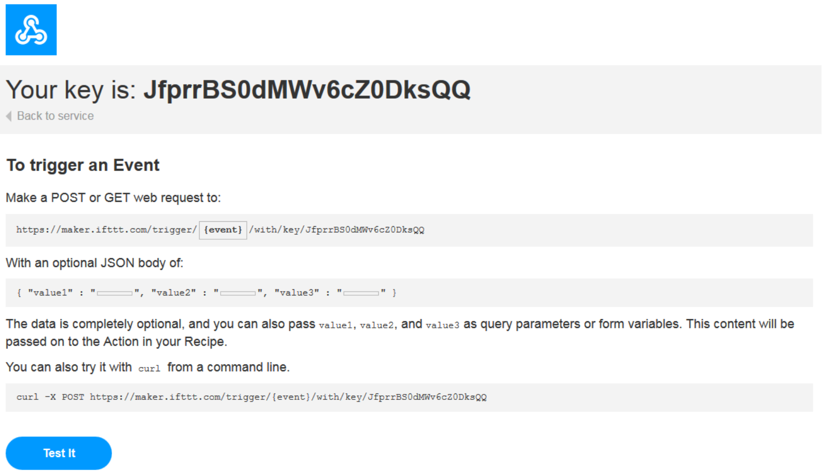
- In the Path field, enter the EventName and key field “trigger/<Event Name>/with/key/<key>”
  - Event name: The event name should be same as the one specified in the IFTTT applet. In this example, the event name is “test_event”
  - Key: In order to obtain a key, you need to look at the documentation tab of the Webhooks service in your IFTTT account once you are logged as shown below.
    - You can look up the Webhooks service in the “Services” tab.



- Once you click on Webhooks, you will see the Webhooks service page and then you can click on the “Documentation” tab on the top right corner.



- In the documentation page, you will be able to see your key and how the HTTP request can be used as shown below.



Your key is: **JfprrBS0dMWv6cZ0DksQQ**

To trigger an Event

Make a POST or GET web request to:

```
https://maker.ifttt.com/trigger/ {event} /with/key/JfprrBS0dMWv6cZ0DksQQ
```

With an optional JSON body of:

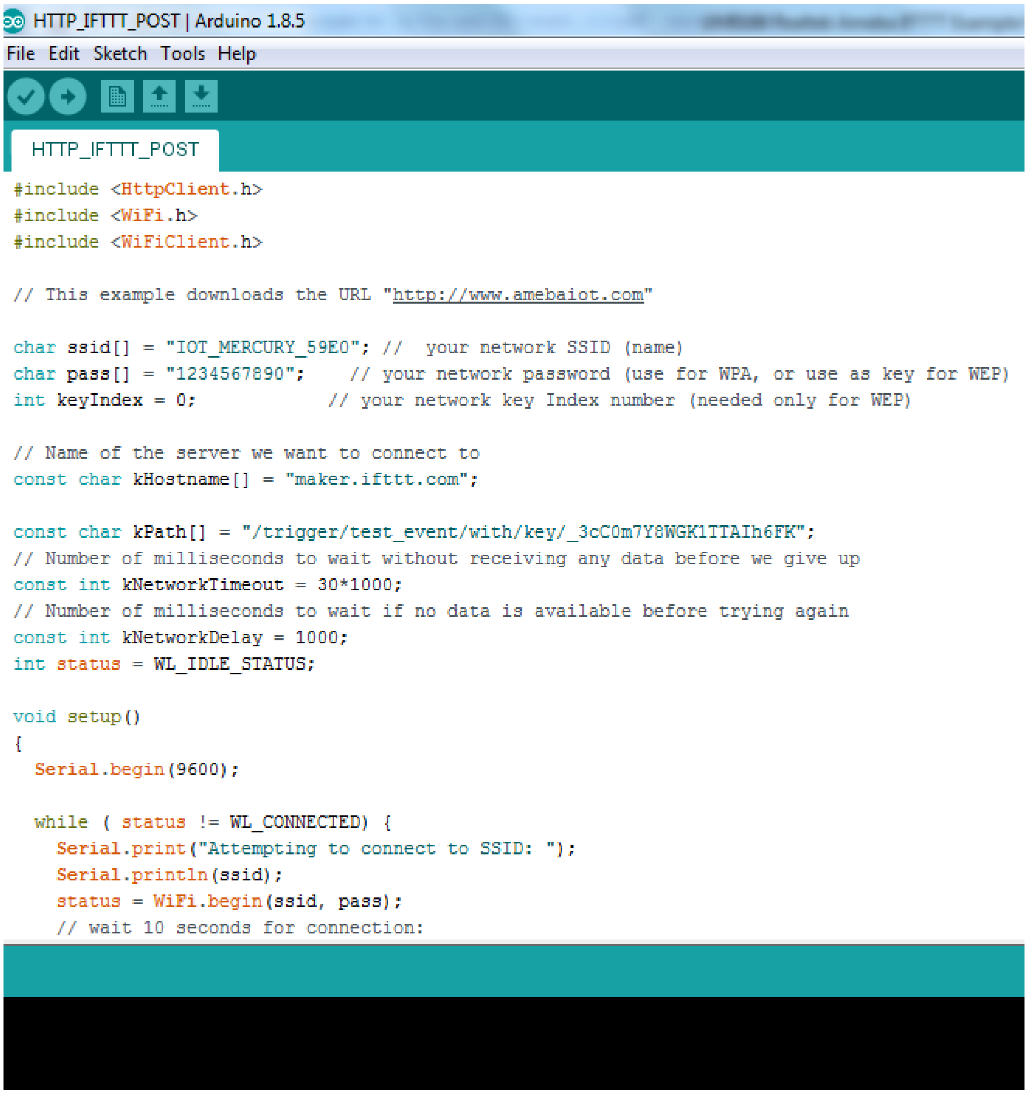
```
{ "value1" : "", "value2" : "", "value3" : "" }
```

The data is completely optional, and you can also pass `value1`, `value2`, and `value3` as query parameters or form variables. This content will be passed on to the Action in your Recipe.

You can also try it with `curl` from a command line.

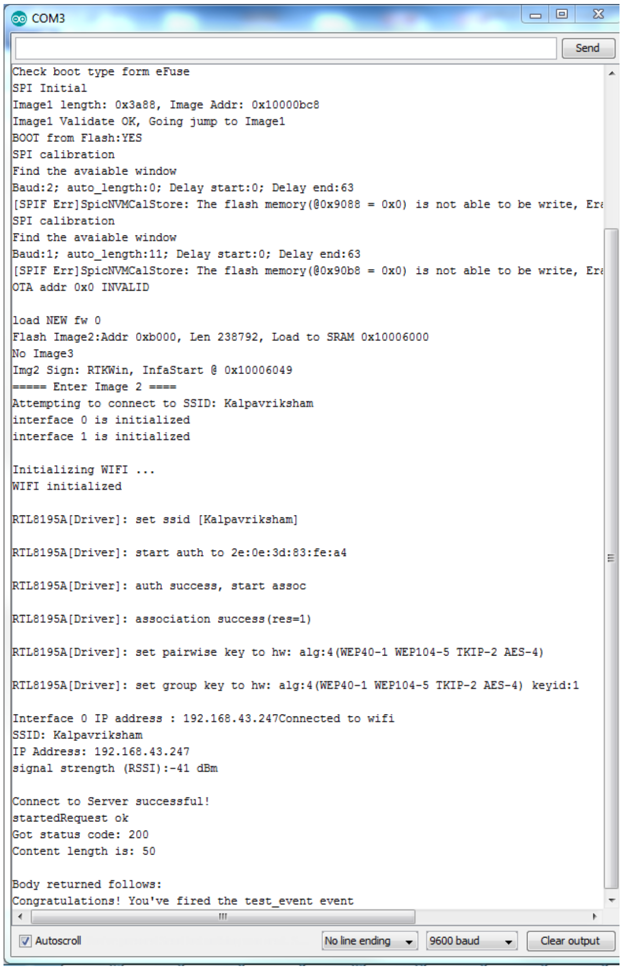
```
curl -X POST https://maker.ifttt.com/trigger/{event}/with/key/JfprrBS0dMWv6cZ0DksQQ
```

➔ A sample of the completed code is as shown below.



```
#include <HttpClient.h>
#include <WiFi.h>
#include <WiFiClient.h>

// This example downloads the URL "http://www.amebaiot.com"

char ssid[] = "IOT_MERCURY_59E0"; //  your network SSID (name)
char pass[] = "1234567890";     // your network password (use for WPA, or use as key for WEP)
int keyIndex = 0;             // your network key Index number (needed only for WEP)

// Name of the server we want to connect to
const char kHostname[] = "maker.ifttt.com";

const char kPath[] = "/trigger/test_event/with/key/_3cC0m7Y8WGK1TTAIh6FK";
// Number of milliseconds to wait without receiving any data before we give up
const int kNetworkTimeout = 30*1000;
// Number of milliseconds to wait if no data is available before trying again
const int kNetworkDelay = 1000;
int status = WL_IDLE_STATUS;

void setup()
{
  Serial.begin(9600);

  while ( status != WL_CONNECTED) {
    Serial.print("Attempting to connect to SSID: ");
    Serial.println(ssid);
    status = WiFi.begin(ssid, pass);
    // wait 10 seconds for connection:
```

- Once the example is setup, connect the Ameba board.
- Compile the code. Click on "Sketch" -> "Verify/Compile" on Arduino. On completion, "Done compiling" will be shown on the bottom of the Arduino screen.
- Upload (flashed) the code onto Ameba by clicking on "Sketch" -> "Upload". (The uploading process will be indicated by component D3 which will be flashing on the board)
- Once the upload is completed (component D3 on the board will stop flashing), "upload finish" will be reflected on the bottom of the Arduino IDE window
- Open the serial monitor.
- Press the "Reset" button to see the output logs.
- If the event has been successfully fired, a body will be returned saying "Congratulations! You have fired the test_event event" as seen on the serial monitor.



```
Check boot type form eFuse
SPI Initial
Image1 length: 0x3a88, Image Addr: 0x10000bc8
Image1 Validate OK, Going jump to Image1
BOOT from Flash:YES
SPI calibration
Find the avaiable window
Baud:2; auto_length:0; Delay start:0; Delay end:63
[SPIF Err]SpicNVMCalStore: The flash memory(@0x9088 = 0x0) is not able to be write, Era
SPI calibration
Find the avaiable window
Baud:1; auto_length:11; Delay start:0; Delay end:63
[SPIF Err]SpicNVMCalStore: The flash memory(@0x90b8 = 0x0) is not able to be write, Era
OTA addr 0x0 INVALID

load NEW fw 0
Flash Image2:Addr 0xb000, Len 238792, Load to SRAM 0x10006000
No Image3
Img2 Sign: RTKWin, InfaStart @ 0x10006049
===== Enter Image 2 ====
Attempting to connect to SSID: Kalpavriksham
interface 0 is initialized
interface 1 is initialized

Initializing WIFI ...
WIFI initialized

RTL8195A[Driver]: set ssid [Kalpavriksham]

RTL8195A[Driver]: start auth to 2e:0e:3d:83:fe:a4

RTL8195A[Driver]: auth success, start assoc

RTL8195A[Driver]: association success(res=1)

RTL8195A[Driver]: set pairwise key to hw: alg:4(WEP40-1 WEP104-5 TKIP-2 AES-4)

RTL8195A[Driver]: set group key to hw: alg:4(WEP40-1 WEP104-5 TKIP-2 AES-4) keyid:1

Interface 0 IP address : 192.168.43.247Connected to wifi
SSID: Kalpavriksham
IP Address: 192.168.43.247
signal strength (RSSI):-41 dBm

Connect to Server successful!
startedRequest ok
Got status code: 200
Content length is: 50

Body returned follows:
Congratulations! You've fired the test_event event
```

☑ Autoscroll   No line ending   9600 baud   Clear output

Thereafter, an email is sent to the recipient specified in the IFTTT applet. An email notification will be received on the event. Check the email.