Week 7

#include <DHT.h>

#include <DHT\_U.h>

#include <ESP8266WiFi.h>

String apiKey = "ZYUP9R7N15OEBYRO";  //

const char \*ssid =  "surekha";

const char \*pass =  "sakhison";

const char\* server = "api.thingspeak.com";

#define DHTPIN D3

DHT dht(DHTPIN, DHT11);

WiFiClient client;

 void setup()

{

  Serial.begin(115200);

  delay(1000);

  dht.begin();

  Serial.println("Connecting to ");

  Serial.println(ssid);

  WiFi.begin(ssid, pass);

  while (WiFi.status() != WL\_CONNECTED)

  {

    delay(2000);

    Serial.print(".");

  }

Serial.println("");

Serial.println("WiFi connected");

}

void loop()

{

 float h = dht.readHumidity();

 float t = dht.readTemperature();

 if (isnan(h) || isnan(t))

 {

  Serial.println("Failed to read from DHT sensor!");

  return;

 }

if (client.connect(server,80))   //   "184.106.153.149" or api.thingspeak.com

{

  String postStr = apiKey;

  postStr +="&field1=";

  postStr += String(t);

  postStr +="&field2=";

  postStr += String(h);

  postStr += "\r\n\r\n";

client.print("POST /update HTTP/1.1\n");

client.print("Host: api.thingspeak.com\n");

client.print("Connection: close\n");

client.print("X-THINGSPEAKAPIKEY: "+apiKey+"\n");

client.print("Content-Type: application/x-www-form-urlencoded\n");

client.print("Content-Length: ");

client.print(postStr.length());

client.print("\n\n");

client.print(postStr);

Serial.print("Temperature: ");

Serial.print(t);

Serial.print(" degrees Celcius, Humidity: ");

Serial.print(h);

Serial.println("%. Send to Thingspeak.");

}

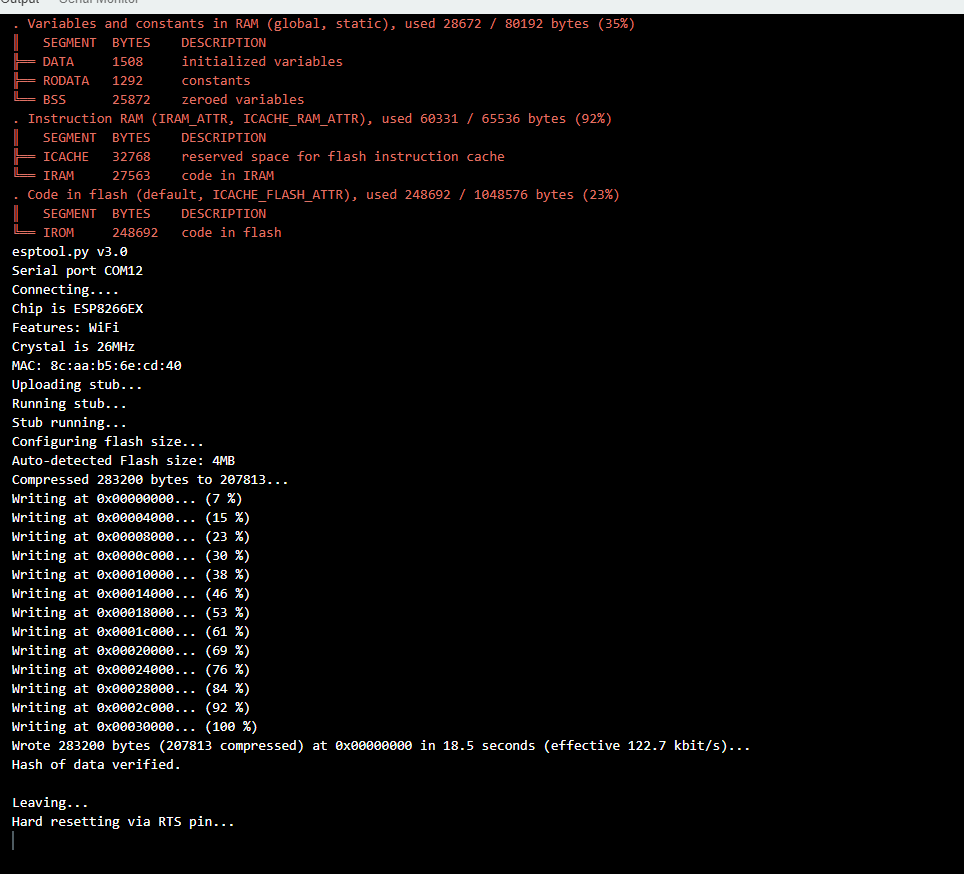
  client.stop();

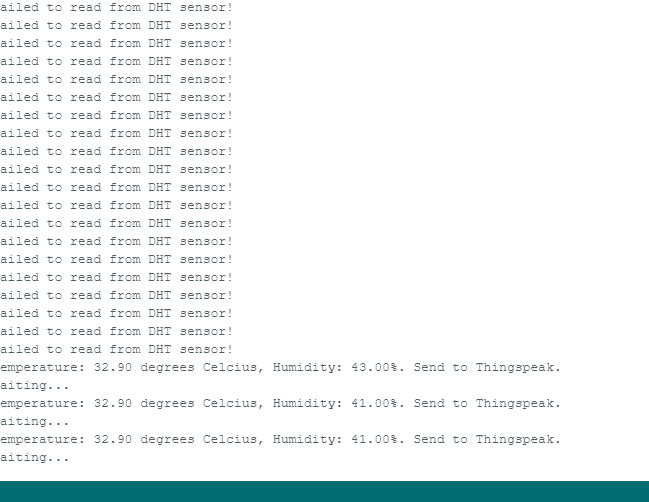
  Serial.println("Waiting...");

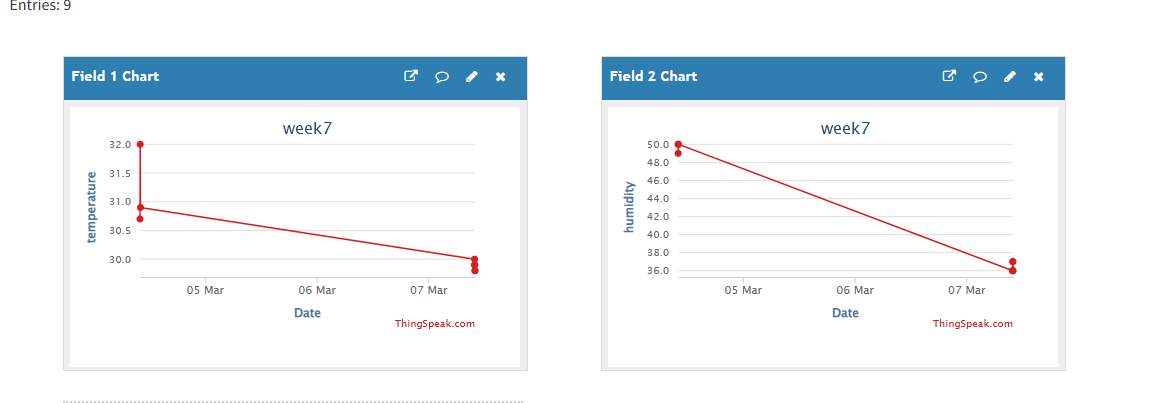
  delay(1000);

}

Output







**Week 8**

#include "ThingSpeak.h"

#include <ESP8266WiFi.h>

#include<DHT.h>

const char ssid[] = "surekha";  // your network SSID (name)

const char pass[] = "sakhison";   // your network password

int statusCode = 0;

WiFiClient  client;

//---------Channel Details---------//

unsigned long counterChannelNumber =  2846266;            // Channel ID

const char \* myCounterReadAPIKey = "SXJMCVLJWIZMZLLF"; // Read API Key

const int FieldNumber1 = 1;  // The field you wish to read

const int FieldNumber2 = 2;  // The field you wish to read

//-------------------------------//

void setup()

{

  Serial.begin(115200);

  WiFi.mode(WIFI\_STA);

  ThingSpeak.begin(client);

}

void loop()

{

  //----------------- Network -----------------//

  if (WiFi.status() != WL\_CONNECTED)

  {

    Serial.print("Connecting to ");

    Serial.print(ssid);

    Serial.println(" ....");

    while (WiFi.status() != WL\_CONNECTED)

    {

      WiFi.begin(ssid, pass);

      delay(5000);

    }

    Serial.println("Connected to Wi-Fi Succesfully.");

  }

  //--------- End of Network connection--------//

  //---------------- Channel 1 ----------------//

  long temp = ThingSpeak.readLongField(counterChannelNumber, FieldNumber1, myCounterReadAPIKey);

  statusCode = ThingSpeak.getLastReadStatus();

  if (statusCode == 200)

  {

    Serial.print("Temperature: ");

    Serial.println(temp);

  }

  else

  {

    Serial.println("Unable to read channel / No internet connection");

  }

  delay(100);

  //-------------- End of Channel 1 -------------//

  //---------------- Channel 2 ----------------//

  long humidity = ThingSpeak.readLongField(counterChannelNumber, FieldNumber2, myCounterReadAPIKey);

  statusCode = ThingSpeak.getLastReadStatus();

  if (statusCode == 200)

  {

    Serial.print("Humidity: ");

    Serial.println(humidity);

  }

  else

  {

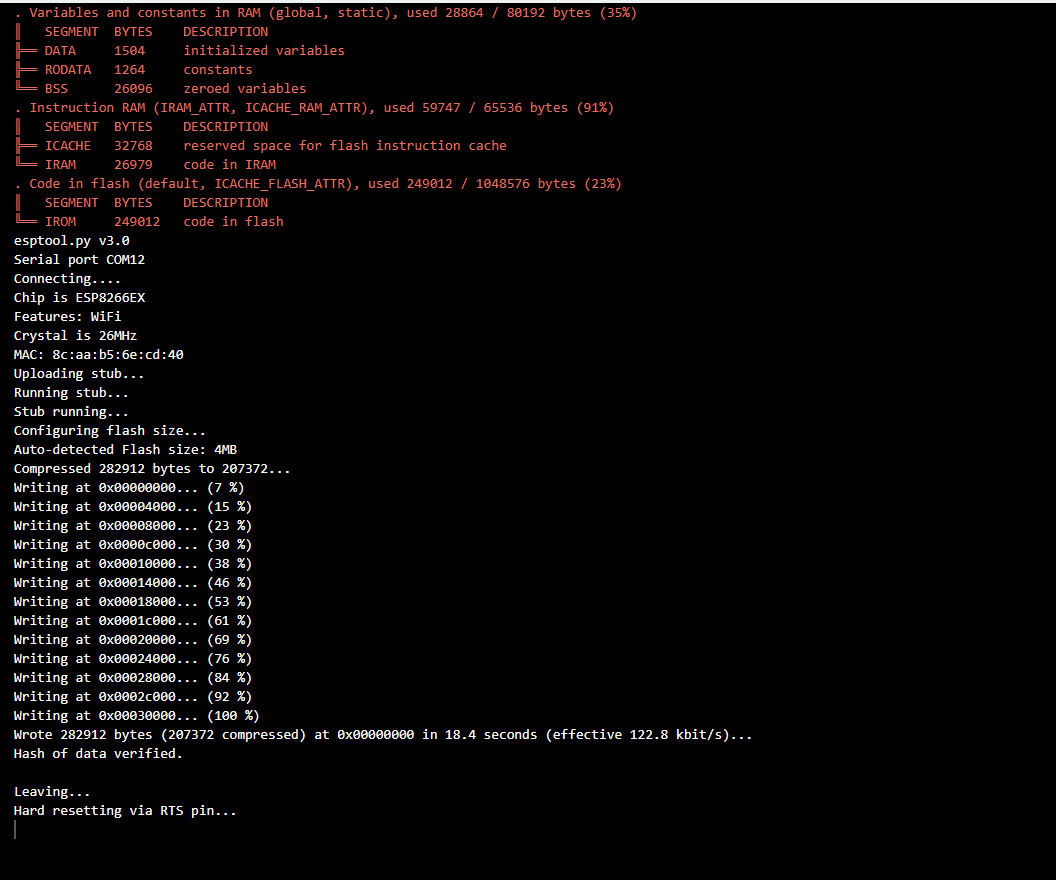
    Serial.println("Unable to read channel / No internet connection");

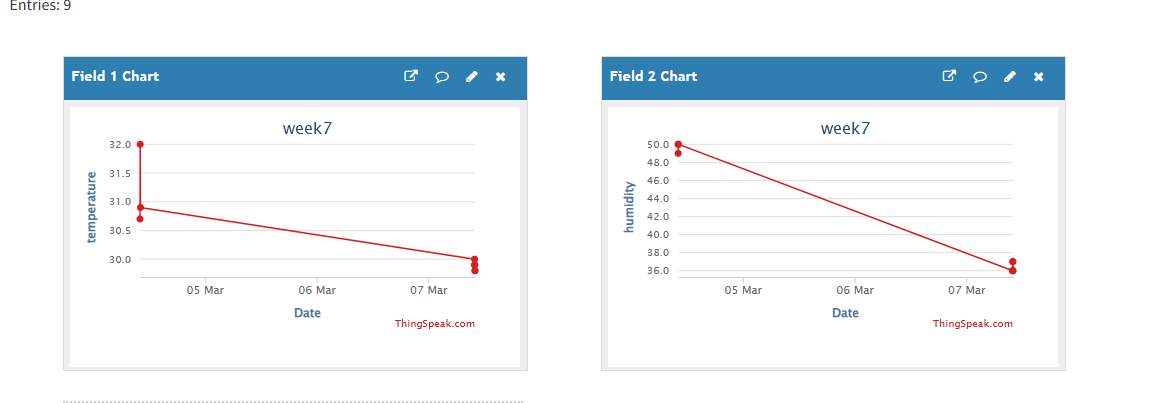
  }

  delay(100);

  //-------------- End of Channel 2 -------------//

}







**Week 6**

#include <ESP8266WiFi.h>

String apiKey = "5NAVIX2DRXWOAV41";

const char \*ssid =  "surekha";

const char \*pass =  "sakhison";

const char\* server = "api.thingspeak.com";

#define IRpin D3

WiFiClient client;

int value;

void setup()

{

Serial.begin(115200);

pinMode(IRpin, INPUT);

delay(1000);

Serial.println("Connecting to ");

Serial.println(ssid);

WiFi.begin(ssid, pass);

while (WiFi.status() != WL\_CONNECTED)

{

delay(1000);

Serial.print(".");

}

Serial.println("   ");

Serial.println("WiFi connected");

}

void loop(){

 value = digitalRead(IRpin);

Serial.println(value);

  if(value==0)

  {

  Serial.println("object detected");

  }

  else

  {

  Serial.println("no object detected");

  }

if (client.connect(server,80))

{

String postStr = apiKey;

postStr +="&field1=";

postStr += String(value);

postStr += "\r\n\r\n";

client.print("POST /update HTTP/1.1\n");

client.print("Host: api.thingspeak.com\n");

client.print("Connection: close\n");

client.print("X-THINGSPEAKAPIKEY: "+apiKey+"\n");

client.print("Content-Type: application/x-www-form-urlencoded\n");

client.print("Content-Length: ");

client.print(postStr.length());

client.print("\n\n");

client.print(postStr);

client.stop();

Serial.println("Waiting...");

delay(1000);

}

}