

```
#include <WiFi.h>
#include <HTTPClient.h>
#include "DHT.h"

#define DHTPIN 4    // GPIO where the DHT sensor is connected
#define DHTTYPE DHT11 // Change to DHT22 if using DHT22
DHT dht(DHTPIN, DHTTYPE);

// Wi-Fi credentials
const char* ssid = "YOUR_WIFI_SSID";
const char* password = "YOUR_WIFI_PASSWORD";

// ThingSpeak settings
const char* server = "http://api.thingspeak.com/update";
String apiKey = "YOUR_THINGSPEAK_API_KEY";

void setup()
{
  Serial.begin(115200);
  dht.begin();

  WiFi.begin(ssid, password);
  Serial.print("Connecting to WiFi");

  while (WiFi.status() != WL_CONNECTED)
  {
    delay(500);
    Serial.print(".");
  }

  Serial.println(" Connected!");
```

```
}
```

```
void loop() {
```

```
  if (WiFi.status() == WL_CONNECTED)
```

```
  {      float      temp      =
```

```
    dht.readTemperature(); float hum =
```

```
    dht.readHumidity();
```

```
  if (isnan(temp) || isnan(hum))
```

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

```
    return;
```

```
  }
```

```
  Serial.print("Temperature: ");
```

```
  Serial.print(temp);
```

```
  Serial.print(" °C, Humidity: ");
```

```
  Serial.print(hum);
```

```
  Serial.println(" %");
```

```
  HTTPClient http;
```

```
  String url = server + "?api_key=" + apiKey + "&field1=" + String(temp) + "&field2=" + String(hum);
```

```
  http.begin(url);
```

```
  int httpStatusCode = http.GET();
```

```
  if (httpStatusCode > 0) {
```

```
    Serial.println("Data sent to ThingSpeak successfully");
```

```
  } else {
```

```
    Serial.print("Error sending data: ");
```

```
    Serial.println(httpStatusCode);
```

```
  }
```

```
  http.end();
```

```
} else {  
    Serial.println("WiFi Disconnected");  
}  
  
delay(15000); // Send data every 15 seconds  
}
```

```
logger.log_struct(log_data)
```