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#include <DHT.h>
#include <ESP8266WiFi.h>

// replace with your channel's thingspeak API key
// and your SSID and password
String apiKey = "apikey";
const char* ssid = "ssid";
const char* password = "password";
const char* server = "api.thingspeak.com";

#define DHTPIN D3
#define DHTTYPE DHT22

DHT dht(DHTPIN, DHTTYPE);
WiFiClient client;

void setup()
{
  Serial.begin(115200);
  delay(10);
  dht.begin();

  WiFi.begin(ssid, password);

  Serial.println();
  Serial.println();
  Serial.print("Connecting to ");
  Serial.println(ssid);

  WiFi.begin(ssid, password);

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

```

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void loop()
{

float h = dht.readHumidity();
float t = dht.readTemperature();
float l = analogRead(A0);
if (isnan(h) || isnan(t))
{
Serial.println("Failed to read from DHT sensor!");
return;
}

if (client.connect(server,80)) {
String postStr = apiKey;
postStr += "&field1=";
postStr += String(t);
postStr += "&field2=";
postStr += String(h);
postStr += "&field3=";
postStr += String(l);
postStr += "\r\n\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 Celsius Humidity: ");
Serial.print(h);
Serial.println("Sending data to Thingspeak");
}
client.stop();

Serial.println("Waiting 20 secs");

```

```
// thingspeak needs at least a 15 sec delay between
updates
// 20 seconds to be safe
delay(60000);
}
```