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#include <ThingSpeak.h>
#include <Wire.h>
#include <AHTxx.h>
#include <WiFi.h>
AHTxx aht20(AHTXX_ADDRESS_X38, AHT2x_SENSOR); //sensor address, sensor
type
hw_timer_t * timer = NULL;
float t,h;

WiFiClient client;
const char* ssid = "Polyhouse";
const char* password = "vigyan412403";

unsigned long myChannelNumber = 1093286;
const char * myWriteAPIKey ="EO5RG6U7G61UETWW";

unsigned long lastTime = 0;
unsigned long timerDelay = 60*60*1000;

void start_aht()
{
  while (aht20.begin() != true)
  {
    Serial.println(F("AHT2x not connected or fail to load calibration
coefficient"));
    delay(2000);
  }
  Serial.println(F("AHT20 OK"));
}
void setup()
{
  Serial.begin(115200); //Initialize serial
  start_aht();
  WiFi.mode(WIFI_STA); //Optional
  WiFi.begin(ssid, password);
  Serial.println("\nConnecting");

  while(WiFi.status() != WL_CONNECTED)
  {
    Serial.print(".");
    delay(100);
  }
  Serial.println("\nConnected to the WiFi network");
  Serial.print("Local ESP32 IP: ");
  Serial.println(WiFi.localIP());

  ThingSpeak.begin(client);
  pinMode(26,OUTPUT); // Relay IN1 - Pad motor
  pinMode(27,OUTPUT); // Relay IN2 - Fogger motor
  pinMode(13,OUTPUT); // Power LED
  digitalWrite(13,HIGH);

}

void loop()
{

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t = aht20.readTemperature();
Serial.print("Temperature (°C): "); Serial.println(t);
h = aht20.readHumidity();
Serial.print("Humidity (%): ");Serial.println(h);
delay(1000);
if ((millis() - lastTime) > timerDelay)
{
    sendData();
    lastTime = millis();
}

if (t>30)
{
digitalWrite(27,HIGH);
delay(2*60000);          // Fogger ON for 2 minute
digitalWrite(27,LOW);
}
else if(h<60)
{
digitalWrite(26,HIGH);
delay(10*60000);        // Pad motor ON for 10 minute
digitalWrite(26,LOW);
}

else {
digitalWrite(26,LOW);
digitalWrite(27,LOW);

}

}

void sendData()
{
    ThingSpeak.writeField(myChannelNumber, 1, t, myWriteAPIKey);
    ThingSpeak.writeField(myChannelNumber, 2, h, myWriteAPIKey);
}

```