#include <SPI.h>

#include <WiFiNINA.h>

#include <PubSubClient.h>

// Update these with your network settings

const char\* ssid = "psu-iot";

const char\* password = "y2nfu9jih82q";

// Update these with your MQTT broker settings

const char\* mqttServer = "41.193.5.154"; // Broker IP

const int mqttPort = 24500; // Broker port

WiFiClient wifiClient;

PubSubClient client(wifiClient);

void setup() {

Serial.begin(9600);

WiFi.begin(ssid, password);

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

delay(500);

Serial.print(".");

}

Serial.println("Connected to WiFi");

client.setServer(mqttServer, mqttPort);

client.setCallback(callback);

while (!client.connected()) {

Serial.println("Connecting to MQTT...");

if (client.connect("MKRWiFi1010Client" )) {

Serial.println("Connected to MQTT");

// Subscribe or publish here

client.subscribe("inTopic"); // Example topic

char tempString[8];

//client.publish("Humidity11", messageBuffer);

} else {

Serial.print("failed with state ");

Serial.print(client.state());

delay(2000);

}

}

}

void callback(char\* topic, byte\* payload, unsigned int length) {

Serial.print("Message arrived in topic: ");

Serial.println(topic);

Serial.print("Message:");

for (unsigned int i = 0; i < length; i++) {

Serial.print((char)payload[i]);

}

Serial.println();

Serial.println("-----------------------");

}

void loop() {

client.loop();

int dummyData = random(0, 100);

char messageBuffer[50];

snprintf(messageBuffer, 50, "%d", dummyData);

if(client.publish("Humidity11", messageBuffer)){

Serial.print("Publish succeeded: ");

Serial.println(messageBuffer);

}else{

Serial.println("publish fILED");

}

delay(10000);

}