#include <Arduino.h>

#include <Wire.h>

#include <Adafruit\_Sensor.h>

#include "model.h"

#include "DHT.h"

#include <EloquentTinyML.h>

#define DHTTYPE DHT11

#define DHTPIN 2

DHT dht(DHTPIN, DHTTYPE);

const int dryValue = 700;   //you need to replace this value with Value\_1

const int wetValue = 300;

float soilMoistureValue = 0;

float soilmoisturepercent = 0;

Eloquent::ML::Port::SVM Soil\_Temp\_Hum;//instanciate the classifier object

void setup() {

  Serial.begin(9600);//begin the Serial communication

  dht.begin();

  Wire.begin(); //begin the I2C communication

}

void loop() {

  // put your main code here, to run repeatedly:

    // put your main code here, to run repeatedly:

       float temp= dht.readTemperature();

 float humid=dht.readHumidity();

  float soilMoistureValue = analogRead(A0);

  float features[]={temp,humid,soilMoistureValue};

  String output\_str = Soil\_Temp\_Hum.predictLabel(features); //run inference

    Serial.print("Temperature : ");

  Serial.print(temp);

  Serial.print(" Humidity : ");

  Serial.println(humid);

Serial.print("your soil moisture : ");

 Serial.println(soilMoistureValue);

Serial.println(output\_str);//print the resulting orientation

}