Smart Farmer-IOT Enabled Smart Farming Application

TEAM ID	PNT2022TMID25834
PROJECT TITLE	Smart Farmer-IOT Enabled Smart Farming Application

MAIN CODE:

```
#include<LiquidCrystal.h>
LiquidCrystal lcd(13,12,11,10,9,8);
#include <Adafruit_Sensor.h>
#include "DHT.h"
#define DHTPIN A5    // what pin we're connected to
#define DHTTYPE DHT11   // DHT 11
int t;
DHT dht(DHTPIN, DHTTYPE);
int m;
int h;
int a,b;
void setup()

{

  Serial.begin(9600);
  // put your setup code here, to run once:
lcd.begin(16,2);
 dht.begin();
pinMode(7,INPUT);  // Moisture
pinMode(4,OUTPUT);  // motor
pinMode(A5,INPUT); //temperature
```

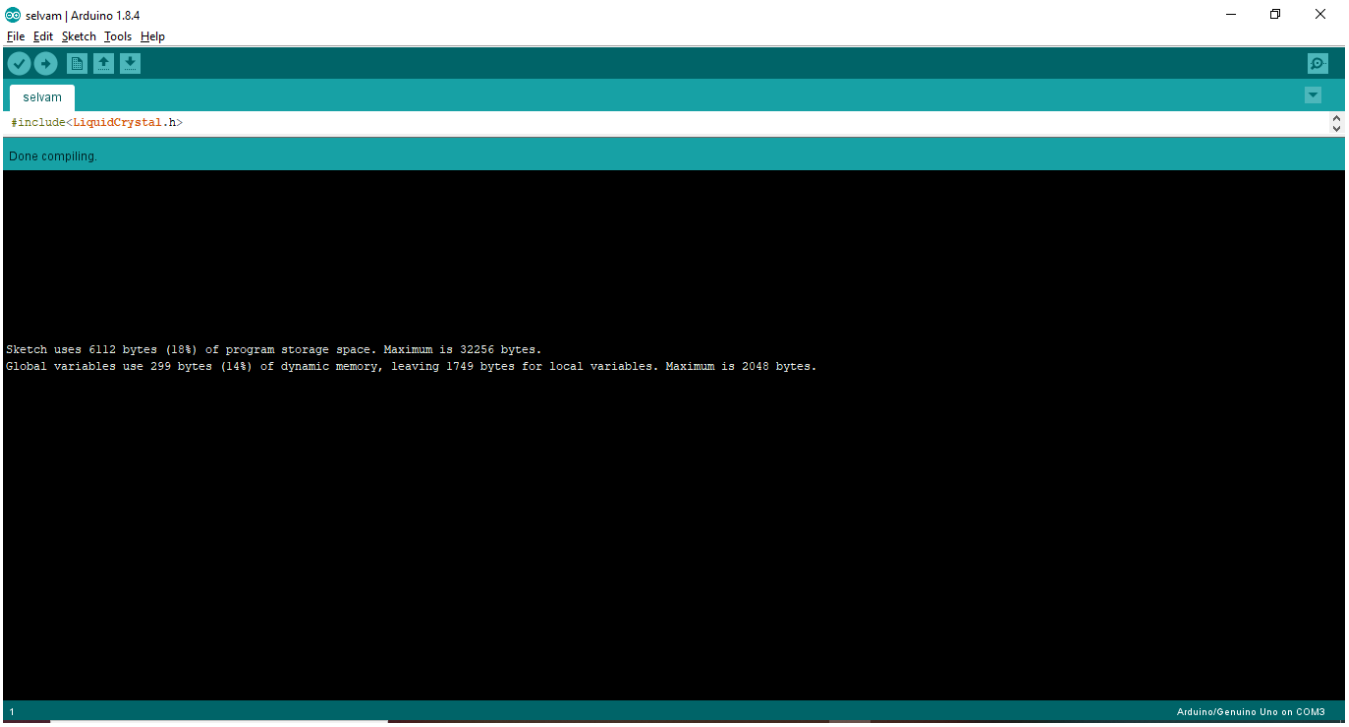
```
}



void loop()
{

  dht11();

if( (a==1)||(b==1))   /////motor and buzzer contion
     {

digitalWrite(4,HIGH);

     }



else if( (a==0)||(b == 0))
{
digitalWrite(4,LOW);

}
int m=analogRead(A0);
if(m>500)
{
  lcd.setCursor(0,1);
  lcd.print("Moist_H");
b=1;
}
else
{
lcd.setCursor(0,1);
lcd.print("Moist_L");
```

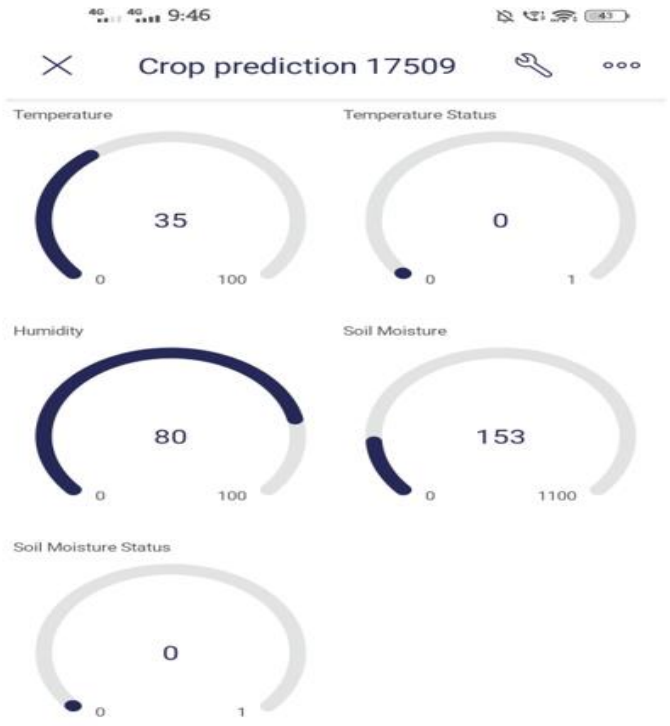
```
b=0;
}


  Serial.println("T");  //temp
   Serial.println(t);
   delay(200);
   Serial.println("A");  //temp status
  Serial.println(a);
  delay(200);
  Serial.println("H");//Huminity  status
   Serial.println(h);
   delay(200);
      Serial.println("M");
  Serial.println(m);
  delay(200);
   Serial.println("B");  //moisture status
   Serial.println(b);
  delay(200);
}
void dht11()
{
      h = dht.readHumidity();
       t = dht.readTemperature();
      float f = dht.readTemperature(true);

      if (isnan(h) || isnan(t) || isnan(f))
      {
        //Serial.println("Failed to read from DHT sensor!");
        return;
      }

          lcd.setCursor(0,0);
```

```
            lcd.print("T:");
             lcd.setCursor(2,0);
             lcd.print(t);
            lcd.print(" ");
               lcd.setCursor(8,0);
            lcd.print("H:");
             lcd.setCursor(10,0);
        lcd.print(h);
        lcd.print(" ");
          delay (1000);
    if(t > 38)
       {
  lcd.setCursor(5,0);
 lcd.print("T-H");


//digitalWrite(A2,HIGH);

a=1;


       }
       else
       {
     lcd.setCursor(5,0);
     lcd.print("T-L");
//digitalWrite(A2,LOW);

a=0;


       }

if(h > 60)
       {
```

```
 lcd.setCursor(13,0);
 lcd.print("H-H");

        }
        else
        {
      lcd.setCursor(13,0);
      lcd.print("H-L");

        }

}
```

OUTPUT:




9:46
Crop prediction 17509
Temperature
35
0
100
Temperature Status
0
0
1
Humidity
80
0
100
Soil Moisture
153
0
1100
Soil Moisture Status
0
0
1