

## SPRINT - 1

Date	14 November 2022
Team ID	PNT2022TMID04642
Project Name	Smart Farmer-IoT Enabled Smart Farming Application

### Connecting sensors using Arduino

```
#include "Arduino.h"

#include "dht.h"

#include "SoilMoisture.h"

#define dht_apin A0


const int sensor_pin = A1; \
//soil moisture

int pin_out = 9;

dht DHT;

int c=0;

void setup()
{
  pinMode(2, INPUT); //Pin 2 as INPUT
  pinMode(3, OUTPUT); //PIN 3 as OUTPUT
  pinMode(9, OUTPUT); //output for pump
}

void loop()
{
  if (digitalRead(2) == HIGH)
  {
    digitalWrite(3, HIGH); // turn the LED/Buzz ON
    delay(10000); // wait for 100 msecond
    digitalWrite(3, LOW); // turn the LED/Buzz OFF
    delay(100);
  }

  Serial.begin(9600);
```

```

delay(1000);

DHT.read11(dht_apin); //temperature

float h=DHT.humidity;

float t=DHT.temperature;

delay(5000);

Serial.begin(9600);

float moisture_percentage;

int sensor_analog;

sensor_analog = analogRead(sensor_pin);

moisture_percentage = ( 100 - ( sensor_analog/1023.00) * 100 ) );

float m=moisture_percentage;

delay(1000);

if(m=0) { mySerial.begin(9600);

delay(15000);

Serial.begin(9600);

delay(1000);

Serial.print("\r");

delay(1000);

Serial.print((String)"update --> "+(String)" Temperature = "+t+(String)"Humidity = "+h+(String)
"Moisture = "+m);

delay(1000);

}

}

```

