Team id	PNT2022TMID32919
Project Name	Smart Farmer-IOT Enabled Smart Farming Application

Connecting sensor with arduino

```
#include "Arduino.h"

#include "dht.h"

 #include "SoilMoisture.h"

#define dht_apin A0

 const int sensor_pin = A1;

 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); //tempraturefloat
 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<40)//pump {
 while(m<40) {
 digitalWrite(pin_out,HIGH); //open pump
sensor_analog = analogRead(sensor_pin);
moisture_percentage = ( 100 - ( (sensor_analog/1023.00) *100 ) );
m=moisture_percentage;
 delay(1000);
 }
 digitalWrite(pin_out,LOW); //closepump
}
 if(c>=0) {
```

```
 mySerial.begin(9600);

delay(15000);

Serial.begin(9600);

delay(1000);

Serial.print("\r");

delay(1000);

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

   delay(1000);

 }

 }
```

Circuit: