SPRINT 1

Date	29 October 2022
Team ID	PNT2022TMID30663
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

Connecting Sensors with Arduino using C++ code

```
#include

"Arduino.h"#include

"dht.h"

#include "SoilMoisture.h"

#define dht_apin A0

const int sensor_pin = A1; //soil

moistureint pin_out = 9;

dht DHT;

int c=0;

void

setup()

{

pinMode(2, INPUT); //Pin 2 as INPUT

pinMode(3, OUTPUT); //PIN 3 as

OUTPUTpinMode(9, OUTPUT);//output

for pump

}
```

```
void loop()
{
  if (digitalRead(2) == HIGH)
  {
```

```
digitalWrite(3, HIGH);    // turn the LED/Buzz
ONdelay(10000); // wait for 100 msecond
digitalWrite(3, LOW);    // turn the LED/Buzz
OFFdelay(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_percenta
ge;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 Diagram