SPRINT 1

Date	15 november 2022
Team ID	PNT2022TMID27179
Project Name	Project – Smart Farmer-IoT Enabled smartFarming 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 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); //temprature
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<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 Diagram:-