SPRINT 1

Date	29 October 2022
Team ID	PNT2022TMID33475
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 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); //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