SPRINT 1

Date	17 November 2022
Team ID	PNT2022TMID33604
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

Connecting Sensors with Arduino using C++ code

```cpp
#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);
```

```cpp
    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