SPRINT 1

Date	29 October 2022
Team ID	PNT2022TMID21901
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