SPRINT 1

Date	18 november 2022
Team ID	PNT2022TMID22879
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application
Team Leader	Sindhu V B
Team Member	Snehaa R Sarathypriyan R Sardhar Hussein B Samrahul M

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

}
Voidloop()
{
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 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_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