SPRINT 1

Date	08 NOVEMBER 2022
Team ID	PNT2022TMID06004
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

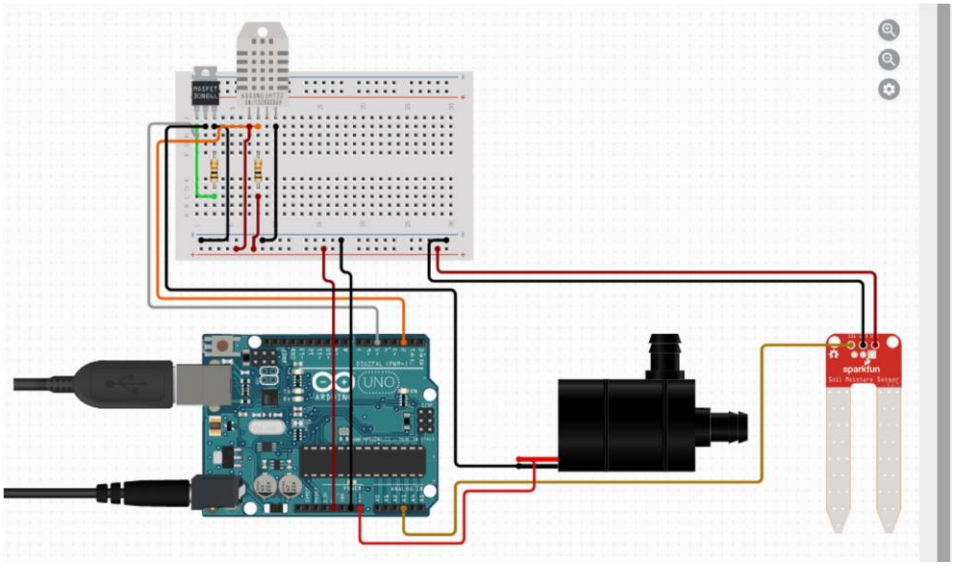
Connecting Sensors with Arduino using C++ code

```
#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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