SPRINT 1

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Team ID	PNT2022TMID08684
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application
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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

}

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 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