SPRINT 1

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Team ID	PNT2022TMID30465
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application
Team Leader	Shrimathi.P
Team Member	Kasthuri.p Suruthi.R Vasuki.P

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