SPRINT 1

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Team ID	PNT2022TMID44658
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