SPRINT DELIVERY – 1

DATE	19 November 2022
TEAM ID	PNT2022TMID41344
PROJECT NAME	Smart Farmer – IoT Enabled Smart Farming Application

Connecting Sensors with Arduino using C++ code

```
#include
"Arduino.h"
#include"dht.h"
#include"SoilMoisture.h"
#definedht_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
INPUTpinMode(3, OUTPUT); //PIN 3 as
OUTPUTpinMode(9,OUTPUT);//output
for pump
}
voidloop()
{
if(digitalRead(2) == HIGH)
{
digitalWrite(3, HIGH); // turn the LED/Buzz
ONdelay(10000); // wait for 100
mseconddigitalWrite(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;del
ay(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)
{
while(m<40)
{
digitalWrite(pin_out,HIGH); //openpump
sensor_analog= analogRead(sensor_pin);
moisture_percentage = ( 100 - (
(sensor_analog/1023.00) *100 ) );
m=moisture_percentag
e;delay(1000);
}
digitalWrite(pin_out,LOW); //closepump
}
if(c>=0)
{
mySerial.begin(9600);d
```

```
elay(15000);Serial.begi
n(9600);delay(1000);Se
rial.print("\r");delay(10
00);
Serial.print((String)"update-
>"+(String)"Temprature="+t+(String)"Humidity="+h+(String
)"Moisture="+
m);delay(1000
);
}
}
```

Circuit Diagram