SPRINT 1

Date	29 October 2022
Team ID	PNT2022TMID21802
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application
Team Leader	PRIYA R
Team Member	MONISHKUMAR.U NAREENDHIRAN.G.R LOGESH.M

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