SPRINT 1

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Team ID	PNT2022TMID24818
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 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