

Sprint Delivery–1

Date	29October2022
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ProjectName	Project – Smart Farmer-IoT Enabled smartFarmingApplication

ConnectingSensorswithArduinousingC++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);
//temperaturefloat 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)"Temperature=" + t + (String)"Humidity=" + h + (String  
)"Moisture=" +  
m);delay(1000  
);  
  
}  
  
}
```

Circuit Diagram

