Smart Farmer-IOT Enabled Smart Farming Application

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SPRINT-1

TITLE	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;
```

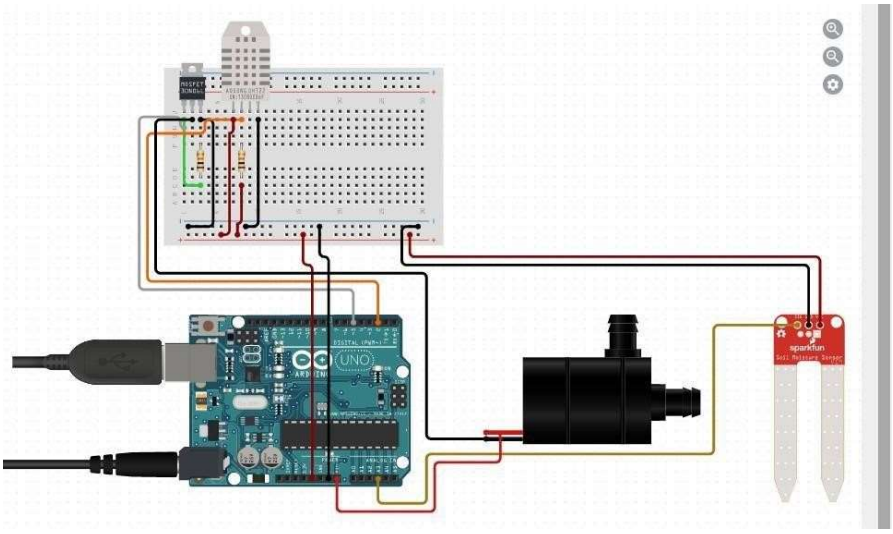
```
float t=DHT.temperature;
 delay(5000); Serial.begin(9600); float
 moisture_percentage; int
sensor_analog; sensor_analog = analogRead(sensor_pin);
moisture_percentage = ( 100 - ( (sensor_analog/1023.00) * 100 )
); float m=moisture_percentage; delay(1000); if(m<40)//pump
{ while(m<40)
{ digitalWrite(pin_out,HIGH); //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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