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

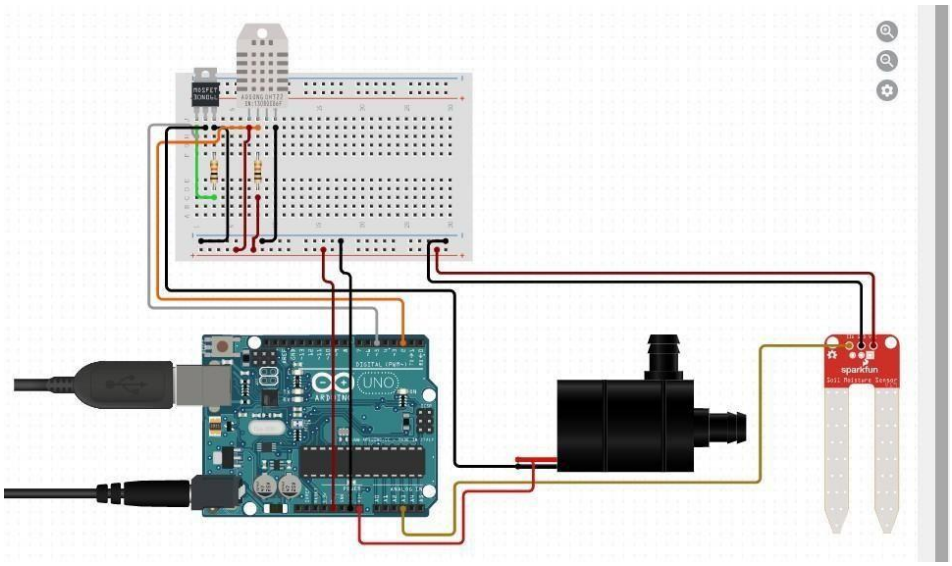
```
#include "Arduino.h" #include  "dht.h"
#include "SoilMoisture.h"
#define dht_apin A0
const int sensor_pin = A1; //soil moisture int pin_out = 9;
dht DHT; int c=0; void setup()
{
pinMode(2, INPUT); //Pin 2 as INPUT pinMode(3, OUTPUT);
//PIN 3 as OUTPUT pinMode(9, OUTPUT);//output for pump
}     void 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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