SPRIN
T 1

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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 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_percenta
ge; 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