SPRINT 1

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Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

Connecting Sensors with Arduino using C++ code

```cpp
#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)
```

```arduino
{
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)"Temperature="+t+(String)"Humidity="+h+(String )"Moisture="+m);

delay(1000);
```

}

        }
Circuit Diagram