SPRINT 2

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Team id	PNT2022TMID48172
Project name	Project – Smart Farmer-IoT Enabled smart Farming Application

Connecting Sensors with Arduino using C++ code

```
#include "Arduino.h"

#include "DHT.h"

//#include "Fan.h"

#include "SoilMoisture.h"

//#include "Pump.h"



#define DHTPIN 2

#define DHTTYPE DHT22 // DHT 22 (AM2302), AM2321

#define soil A3

#define pump 6

#define sprinkler 9

#define dryer 5



DHT dht(DHTPIN, DHTTYPE);

void setup()

{



Serial.begin(115200);

dht.begin();

}

void loop()
```

```
{
 float temperature = dht.readTemperature();
 float humidity = dht.readHumidity();

 if (isnan(temperature) || isnan(humidity))
{
 Serial.println(F("Failed to read from DHT sensor!"));
 return;
 }
 Serial.print(F("Humidity: "));
Serial.print(humidity);
 Serial.print(F("% Temperature: "));
 Serial.print(temperature);
 Serial.println(F("°C "));
if(humidity < 75 && temperature >30)
 {
 digitalWrite(sprinkler, HIGH);
 digitalWrite(dryer, LOW);
 }
 else if(humidity > 85 && temperature 85 && humidity < 75) && (temperature >20 && humidity
<30))
{
 digitalWrite(sprinkler, LOW);
 digitalWrite(dryer, LOW);
 }
int sensor_analog = analogRead(soil);
 float mp = (100-((sensor_analog/1023.00)*100));
 if(mp<40)
```

```
digitalWrite(pump, HIGH);
else
 digitalWrite(pomp, LOW);
 delay(1000);
 }
```

Circuit diagram :