SPRINT 2

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Team ID	PNT2022TMID12089
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 <20)
  {
    digitalWrite(sprinkler, LOW);
    digitalWrite(dryer, HIGH);
  }
  else if((humidity > 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