SMART FARMER – IOT ENABLEDD SMART

FARMINGAPPLICATION

PROJECT DEVELOPMENT – DELIVERY

OFSPRINT – 2

DATE	17 NOVEMBER 2022
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 "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