SMART FARMER – IOT ENABLEDD SMART FARMING

APPLICATION

PROJECT DEVELOPMENT – DELIVERY OF

SPRINT – 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