Team ID	PNT2022TMID03184
Project Name	Project – Smart farmer-IoT enabled smart farming application.

Connecting Sensors with Arduino using C++ code

```
#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
}
        voi
dloop()
{
  if (digitalRead(2) == HIGH)
  {
  digitalWrite(3, HIGH);              // turn the LED/Buzz ON
  delay(10000); // wait for 100 msecond digitalWrite(3, LOW);
  // turn theLED/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(1500
0);Serial.begin(9600); delay(1000);
Serial.print("\r"); delay(1000);
Serial.print((String)"update-
>"+(String)"Temprature="+t+(String)"Humidity="+h+(String
)"Moisture="+m); delay(1000);
    }
}
```

Circuit Diagram