**SPRINT1**

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| Date | 13November2022 |
| TeamID | PNT2022TMID17177 |
| ProjectName | Project – Smart Farmer-IoT Enabled smartFarmingApplication |

**ConnectingSensorswithArduinousingC++code**

#include "Arduino.h"#include"dht.h"

#include"SoilMoisture.h"

#definedht\_apinA0

const int sensor\_pin = A1;//soil moistureint pin\_out =9;

dht DHT;int c=0;voidsetup()

{

pinMode(2, INPUT); //Pin 2 as INPUTpinMode(3, OUTPUT); //PIN 3 as OUTPUTpinMode(9,OUTPUT);//output for pump

}

voidloop()

{

if(digitalRead(2) ==HIGH)

{

digitalWrite(3,HIGH); // turn the LED/Buzz ONdelay(10000);// wait for 100 mseconddigitalWrite(3,LOW); // turn the LED/Buzz OFFdelay(100);

}

Serial.begin(9600);delay(1000);

DHT.read11(dht\_apin); //tempraturefloath=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); //openpump

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(15000);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);

}

}

**CircuitDiagram**

