

SPRINT-4
AURDINO CODE

TEAM ID-PNT2022TMID30972

```
#include <OneWire.h>

#include <DallasTemperature.h>

#define ONE_WIRE_BUS 5

OneWire oneWire(ONE_WIRE_BUS);

DallasTemperature sensors(&oneWire);

float Celcius=0;

float Fahrenheit=0;

float voltage=0;

const int analogInPin = A0;

int sensorValue = 0;

unsigned long int avgValue;

float b;

int buf[10],temp;

void setup(void)
{

    Serial.begin(9600);

    sensors.begin();

    int sensorValue = analogRead(A1);

    voltage = sensorValue * (5.0 / 1024.0);

}

void loop(void)
{

    sensors.requestTemperatures();

    Celcius=sensors.getTempCByIndex(0);

    Fahrenheit=sensors.toFahrenheit(Celcius);

    for(int i=0;i<10;i++)

    {
```

```
buf[i]=analogRead(analogInPin);
delay(10);
}
for(int i=0;i<9;i++)
{
  for(int j=i+1;j<10;j++)
  {
    if(buf[i]>buf[j])
    {
      temp=buf[i];
      buf[i]=buf[j];
      buf[j]=temp;
    }
  }
}
for(int i=2;i<8;i++)
avgValue+=buf[i];
float pHVol=(float)avgValue*5.0/1024/6;
float pHValue = -5.70 * pHVol + 21.34;
Serial.println(pHValue);
Serial.print("pH");

Serial.print(" C ");
Serial.print(Celcius);

Serial.print(voltage);
Serial.print("V");
delay(10000);
}
```