Name Shabbir Ezzy

Roll no.-10

Batch: S1

-PRACTICAL NO. 11-

AIM Write a program so it displays the temperature in Fahrenheit as well as the maximum and minimum temperatures it has seen.

----------CODE----------

```
feat mintemp; foat
maxtemp;
bool initialtemp true;
void setup(){
Serial.begin(9600);
void loop(){
int raw analogRead(A0);
float volt=raw * 4.88; float
temp= volt/10:
float fare =(temp * 1.8) + 32.0;
Serial.println("Temperature in Fahrenheit:");
Serial.println(fare);
Delay(1000);
if(initialtemp)
{
mintemp =maxtemp = fare:
initialtemp false;
}
Else{
if (fare > maxtemp)
maxtemp fare:
}
if (faremintemp)
{
```

```
mintemp fare;

}

}

Serial.println("MAXIMUM TEMPERATURE:");

Serial.println(maxtemp); Serial.println("MINIMUM

TEMPERATURE:"); Serial.println(mintemp);

}
```

----------OUTPUT----------

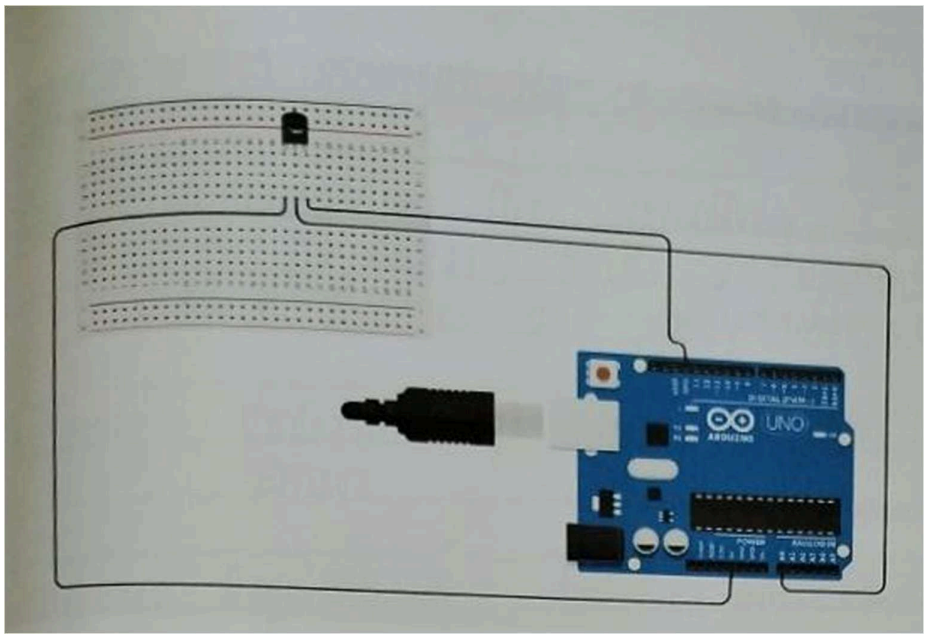
STEPS:-

1. Create a new circuit:-

- Click on the "Create New Circuit" button.
- Select the "Start New Circuit" option.

2. Build the circuit:-

- Drag and drop an Arduino UNO board from the components panel onto the workplane.
- From the components panel, search for "LM35" and select the LM35 temperature sensor.
- Connect the VCC pin of the LM35 to the SV pin of the Arduino.
- . Connect the GND pin of the LM35 to the GND pin of the Arduino.
- Connect the output pin (typically the middle pin) of the LM35 to analog pin A0 of the Arduino.



3. Open the code editor:-

- Click on the "Code" button located above the circuit workplane.
- Write the code.

4. Then start the stimulation.

- Click on the "Start Simulation" button located above the circuit workplane.
- The simulation will start, and you will be able to see the temperature values printed in the serial monitor.

5. The programme will read the temperature from the LM 35 temperature sensor and change the value to the serial monitor on the computer the output of the experiment will be displayed on the serial monitor and will consist the following information.

6. Temperature in Fahrenheit:-

7. Maximum temperature:-

8. Minimum

temperature:-hey The output will

be as follows:- Temperature in

Fahrenheit: 294.64

MAXIMUM TEMPERATURE: 310.45

MINIMUM TEMPERATURE: 166.40

Temperature in Fahrenheit: 294.64

MAXIMUM TEMPERATURE: 310.45

MINIMUM TEMPERATURE: 166.40

CIRCUIT DIAGRAM:-