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1) User Tasks

- Measures and Display temperature
- Allow the user to calculate Average, Maximum and Minimum temperature values
- User can view temperatures in different scales and parameters on the display by selecting Button-1
- Allow the User to plot graph on the display by choosing Button-2

2) List of Files

- main.cpp
- N5110.cpp
- N5110.h

3) Software modules used in the design

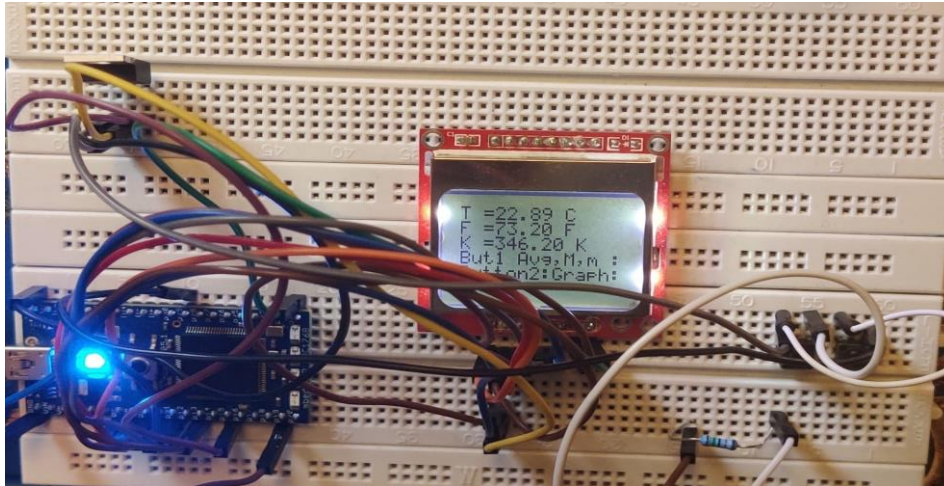
- Main
 - Average
 - Max_min_value

4) Functions in each module

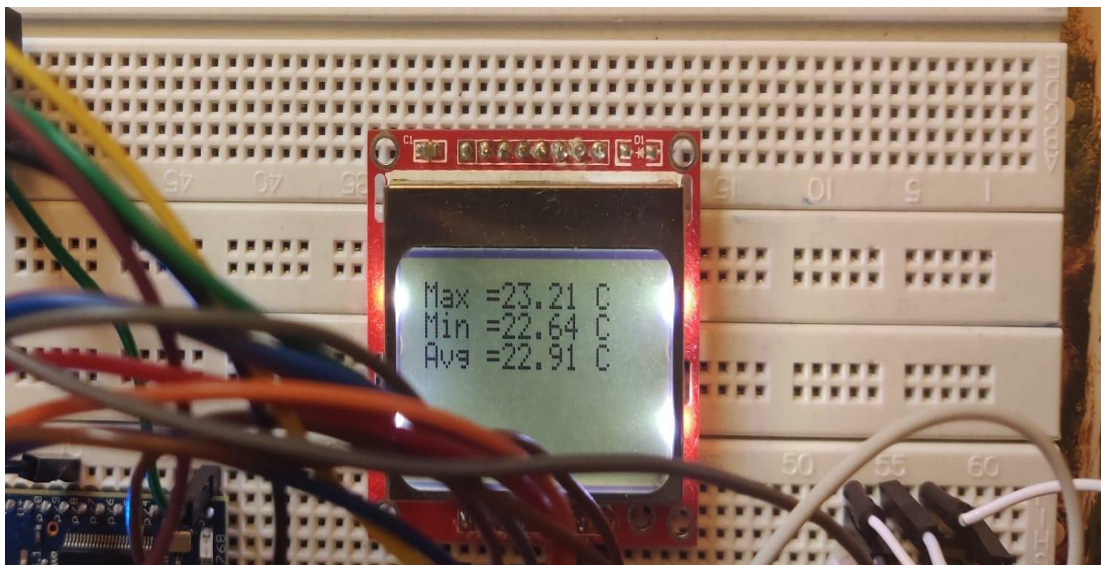
- Average Function
 1. Input 1– Voltage Readings from temperature sensor; local variable; float
 2. Input 2 – Sum; local variable; float
 3. Output 1 – Average; result returned; float
- Max_min_value Function
 1. Input 1 - Voltage Readings from temperature sensor; local variable; float
 2. Input 2 – Maximum value; local variable; float
 3. Input 3 – Minimum value; local variable; float
 4. Output 1 - array a2; global; float
- Main function
 1. Button1 –
 - Input 1 – a2[1] (maximum temperature value); global; float
 - Input 2 – a2[0] (minimum temperature value); global; float
 - Input 3 – Average; parameter; float
 - Output 1 – buffer; local variable; float // Displays the output
 2. Button 2
 - Input 1- Voltage Readings from temperature sensor; local variable; float
 - Output 1 – Lcdplot; function
 3. Display –
 - Input 1 – temp; local variable; float
 - Input 2 – Fahrenheit; local variable; float
 - Input 3 – kelvin; local variable; float
 - Output 1 – buffer; local variable; float // Displays the output

5) Output Images

Temperature Display



Max,Min,Average Temperatures



Graph Plot

