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# IoT Based Automatic Water Temperature Adjustor

Presented By

Sabin Shrestha

Email: [Sabin.shres.002@gmail.com](mailto:Sabin.shres.002@gmail.com)

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# Introduction

- ❑ IoT is an emerging topic having significance in many field.
- ❑ IoT refers to the scenarios where network connectivity and computing capability extends to objects, sensors and everyday items to generate, exchange and consume data with minimal human intervention.
- ❑ IoT Based Automatic Water Temperature Adjustor is a system for automatically adjusting water temperature as according to the temperature of the atmosphere or environment in which water temperature range can be updated by the user with the help of android application.

# Objective

Make water heating system automatic

Increase in availability for every people

Decrease inconveniencies while operating Water Heating System

Lower the power consumption

Decrease time-wasting in waiting

Increasing satisfaction while using water

# What's the problem with other water heating System?

## Problems:

- ❑ **Time consuming**
- ❑ **Unable to adjust water temperature**
- ❑ **High Electricity consumption**
- ❑ **Cold Water Sandwich**
- ❑ **Electrical fire outbreaks due to the negligence of peoples while using.**

# Comparison with other water heating systems

<b>IOT Based Automatic Water Temperature Adjustor</b>	<b>Other Water Heating System</b>
<b>Automatic</b>	<b>Not Automatic</b>
<b>Less Power Consumption</b>	<b>High Power Consumption</b>
<b>Satisfying Water Temperature</b>	<b>Unsatisfying water temperature</b>
<b>Water Temperature Adjustable</b>	<b>Water Temperature not Adjustable</b>
<b>Able to read the room Temperature</b>	<b>Unable to read the room temperature</b>
<b>Cheap</b>	<b>Expensive</b>

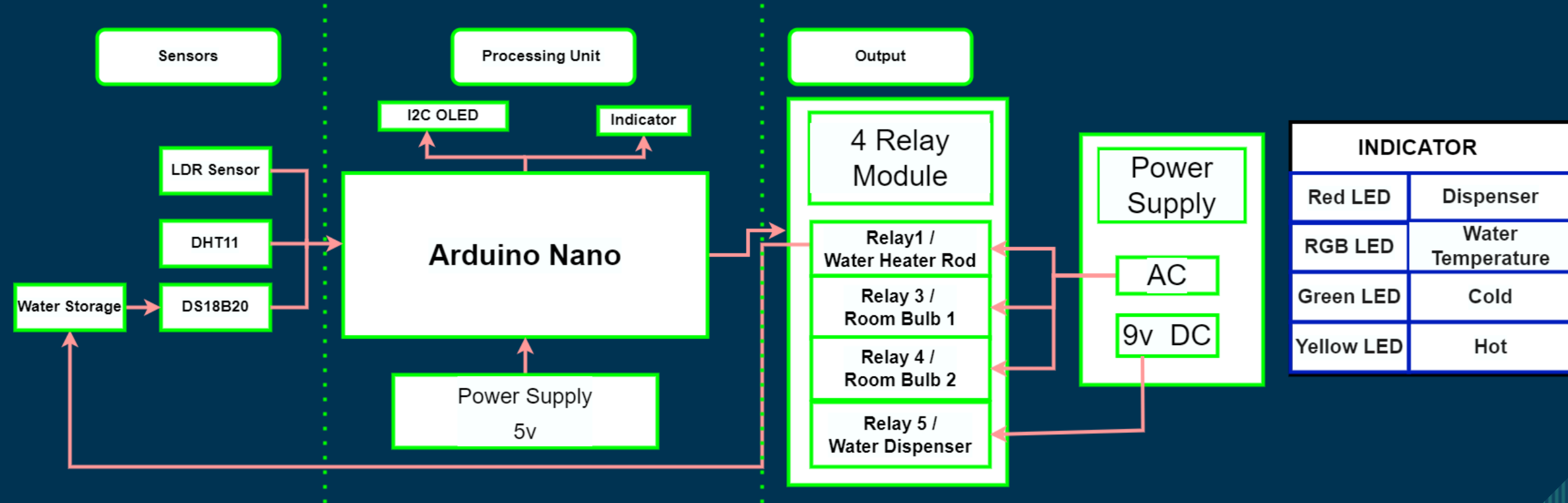
# Hardware used:

- **Arduino NANO**
- **DHT11**
- **DS18B20**
- **LDR**
- **I2C OLED**
- **Relay**
- **Water Heating Submersible Rod**

# Software used

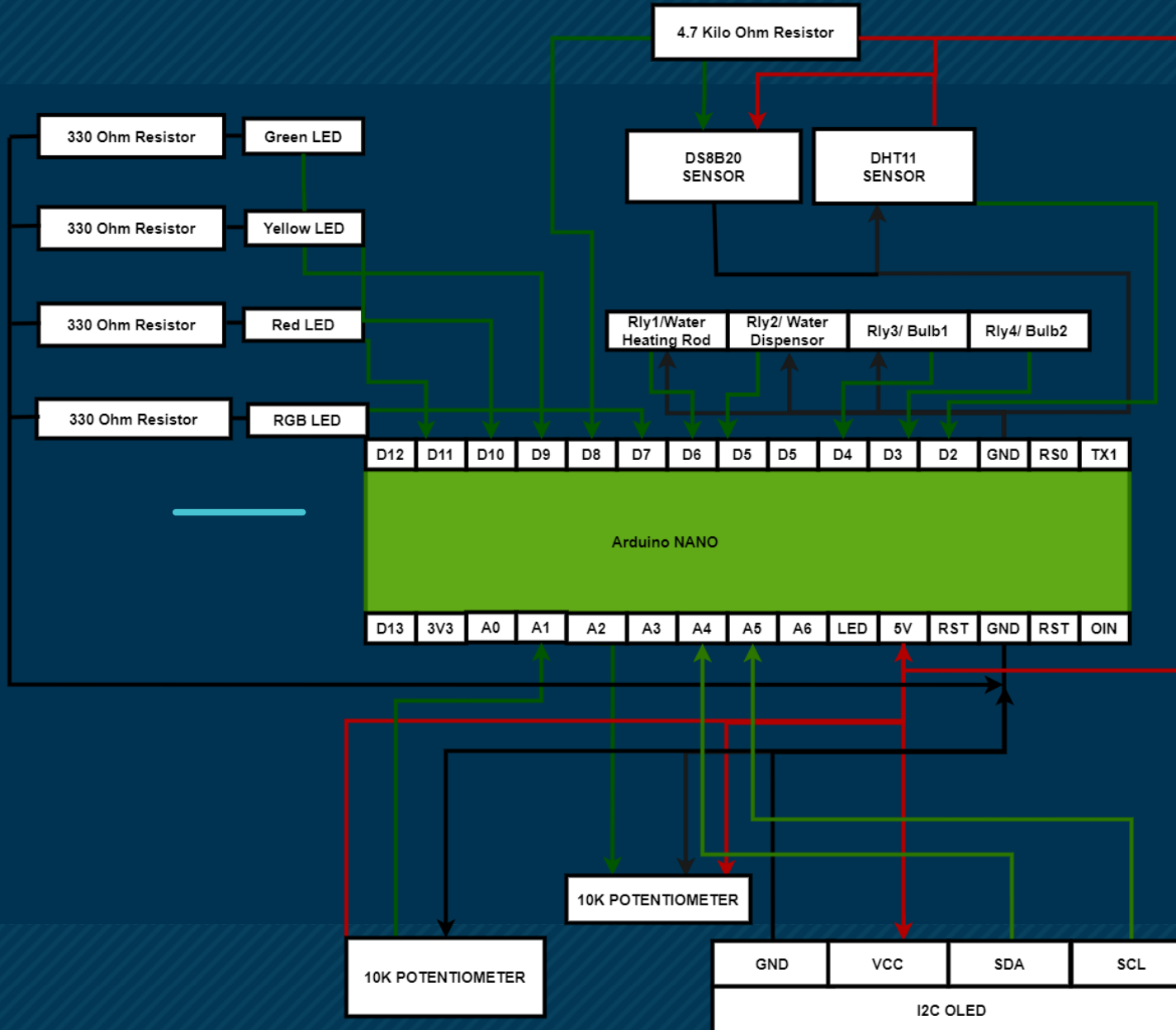
- **Arduino Ide**
- **Temperature adjustor Apk**

# Block Diagram of the Project





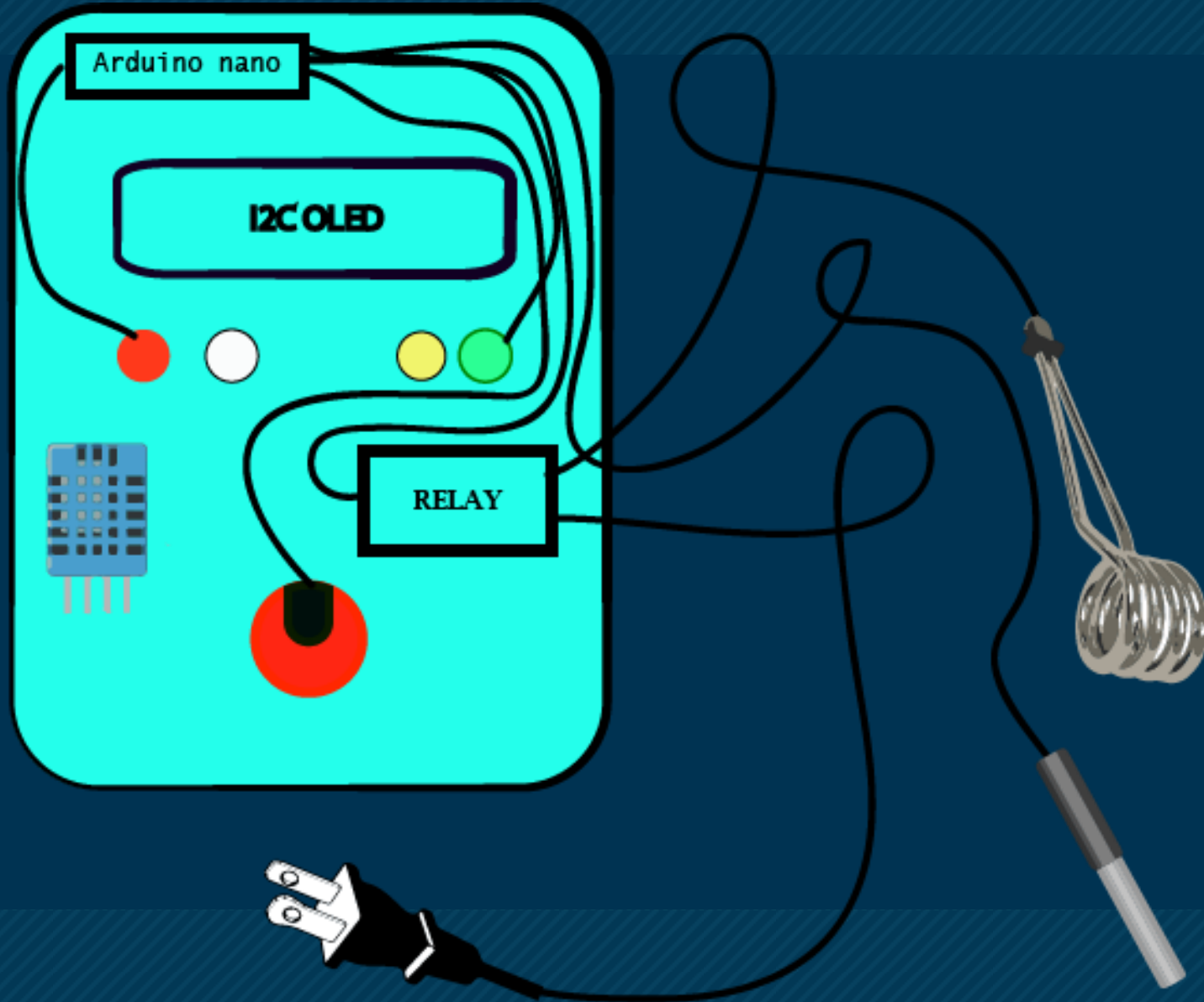
# System Pin Allocation:



## WIRING

<div></div>	Vcc
<div></div>	Resistor wire
<div></div>	Data transfer wire
<div></div>	GND

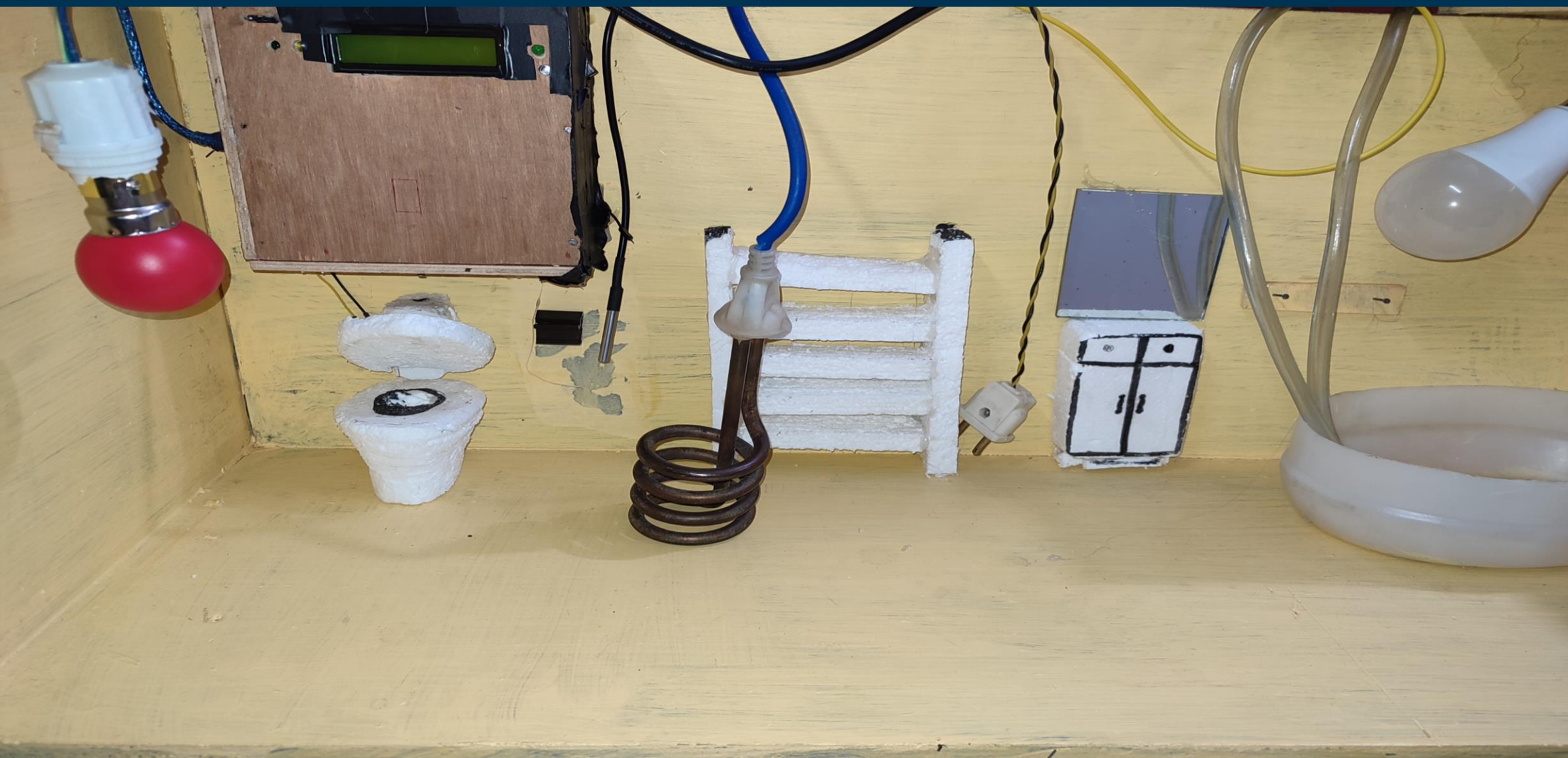
# Prototype design of system



# Result

- ❑ **System is able to read room temperature.**
- ❑ **Water heating Rod started working according to the instruction set.**
- ❑ **System is able to read the Water Temperature.**
- ❑ **System is able to turn off the water heating rod when the water temperature reached the preset water limit.**
- ❑ **Through mobile application the temperature range is able to change according to the need of the user.**
- ❑ **The system is able to work as according to the plan.**

# Prototype System



# Conclusion

**IOT based automatic water temperature adjustor, which reads the temperature of any atmosphere to find the condition of the atmosphere that is hot or cold and gives output by adjusting temperature of water as required for the user automatically.**

**This system could be useful in homes, offices, factories, dormitories, hotels, cafeterias, manufacturing processes, laundries, industries, thermal electric generation plants etc.**

**The system is able to solve the problems such as displeasing water temperature, high electricity consumption, Electrical fire outbreaks and many more.**

**In the future, the system can be more simple, broadly used in many different electrical systems such AC, Geyser, and many others, be connected to individual mobile system and can be fully automated.**



Thank You !!



**ANY  
QUERIES ?**