DIY Team Project Week-4

Project Name :-
Controlling Home Appliances remotely using Arduino

TEAM 19 :-
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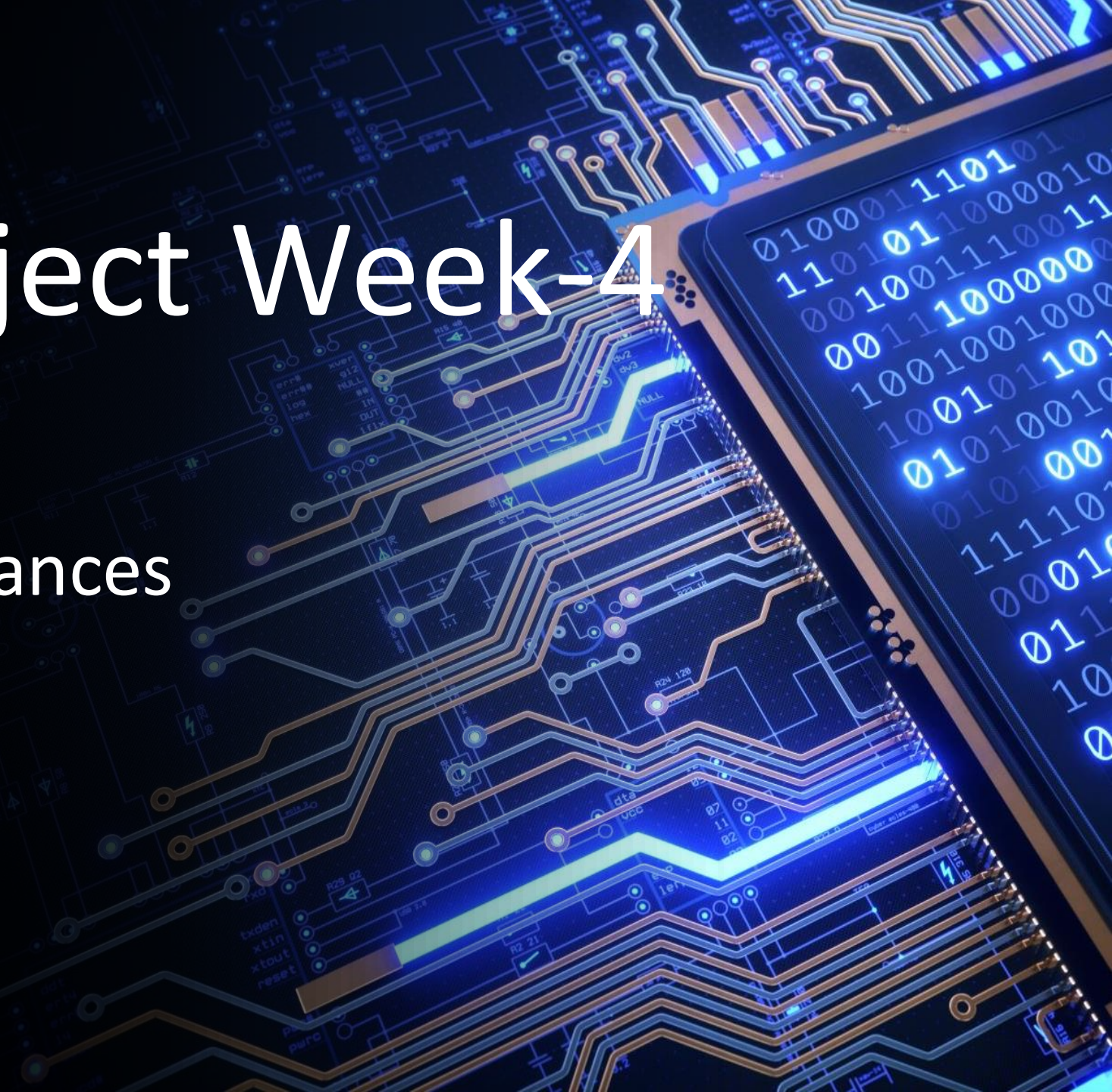
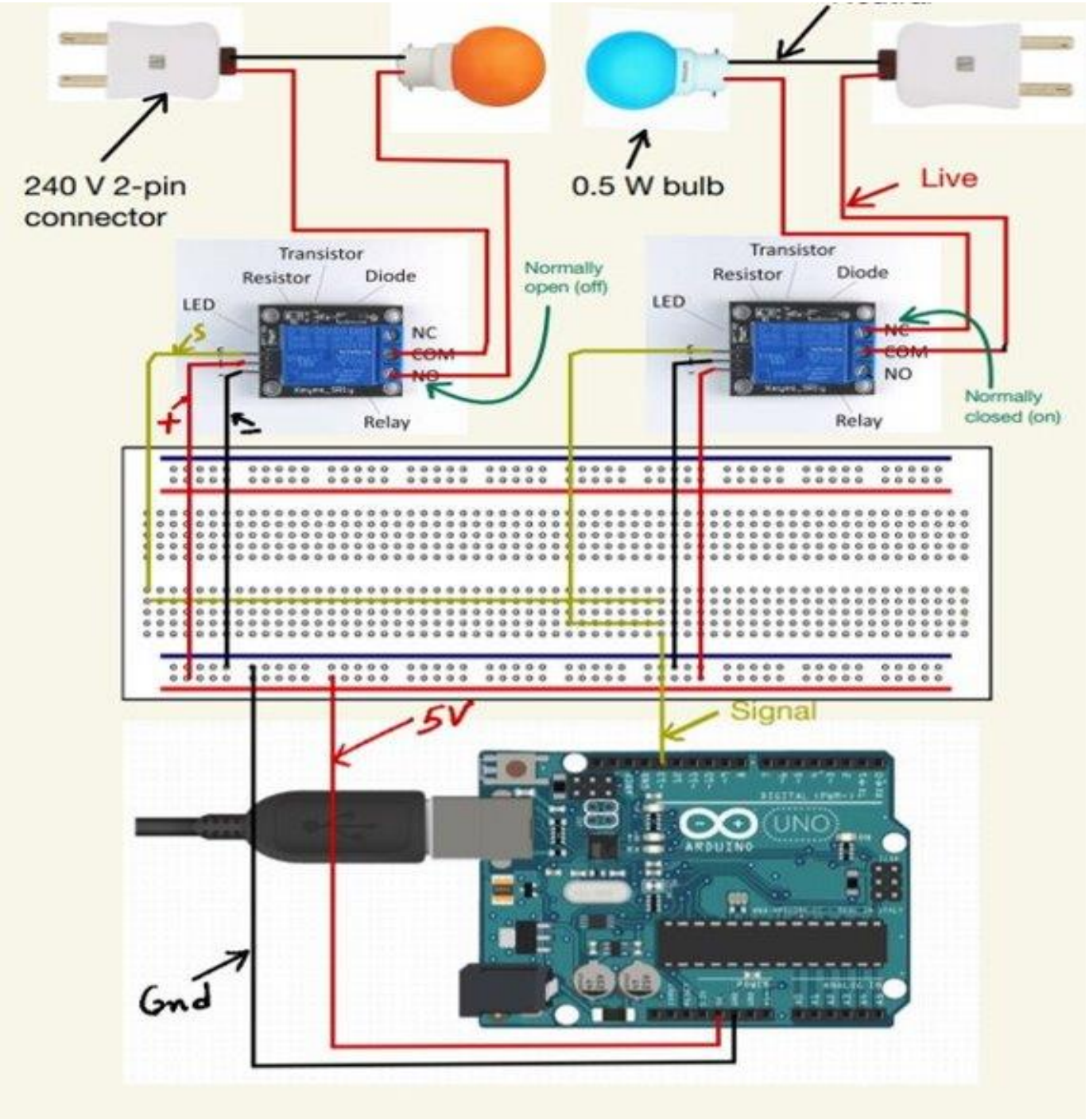
Soni Aditya Bharatbhai (20CS10060)
Abhijeet Singh (20CS30001)
Gopal (20CS30021)



Schematic of the Product :-



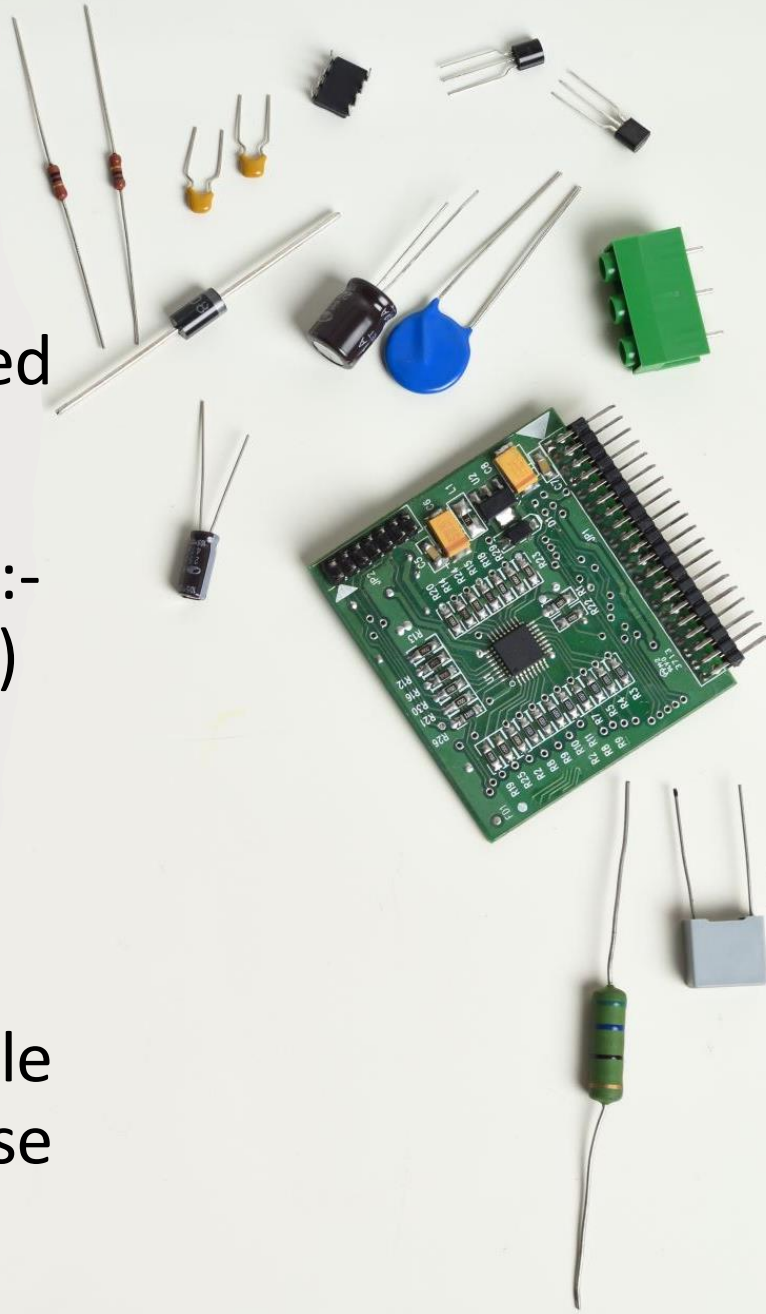
Details of the Hardware Setup :-

The total Cost incurred is 1000 Rs. which will be divided equally among four of us.

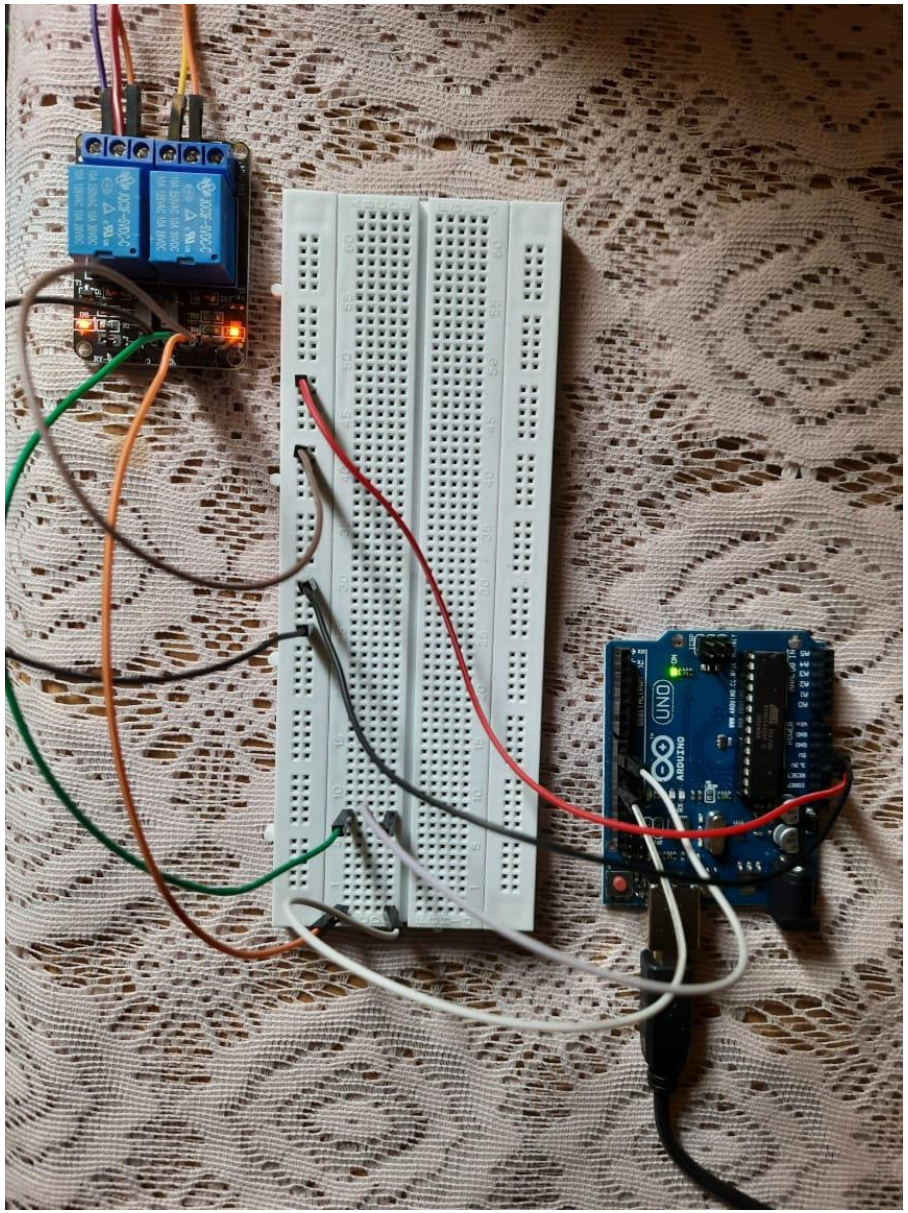
The hardware components used for this project include :-

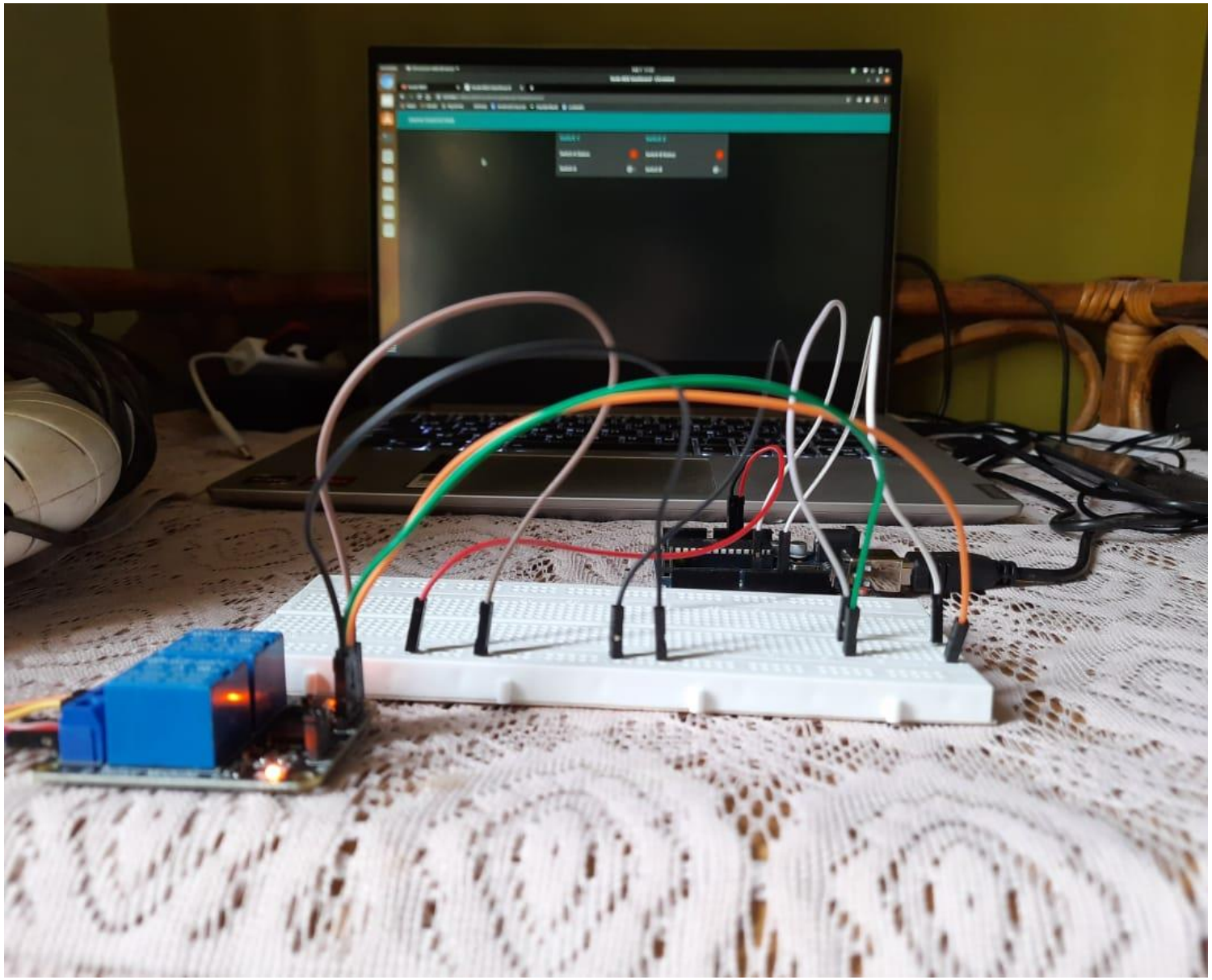
- Arduino Uno R3 Atmega328p With USB Cable (551 Rs.)
- 5V 10A 2 Channel Relay Module (125 Rs.)
- Breadboard and Jumper Wires Set (205 Rs.)
- Connecting Wire

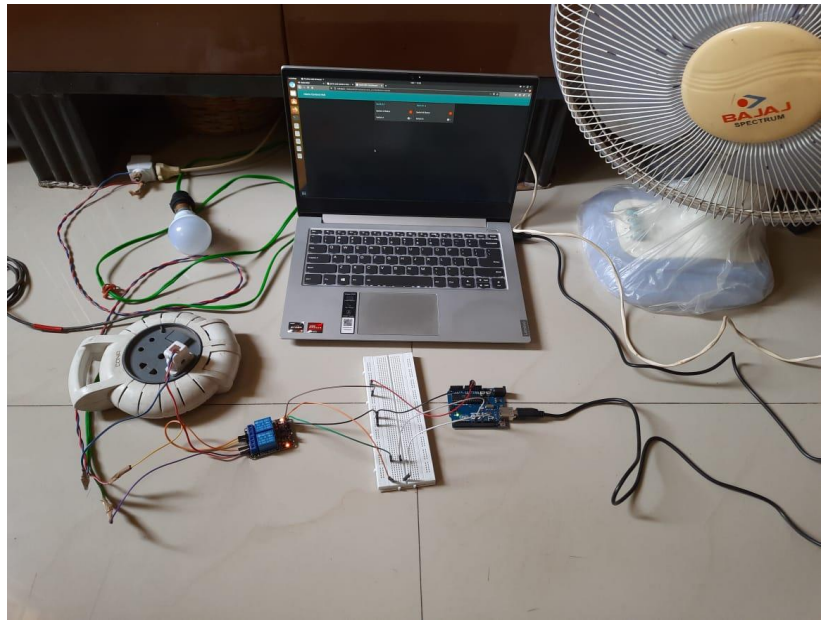
In addition we also used Light Bulb, Table Fan, Mobile Charger and Mosquito Killing Machine(All Out). These appliances are already present at Chirag’s home.



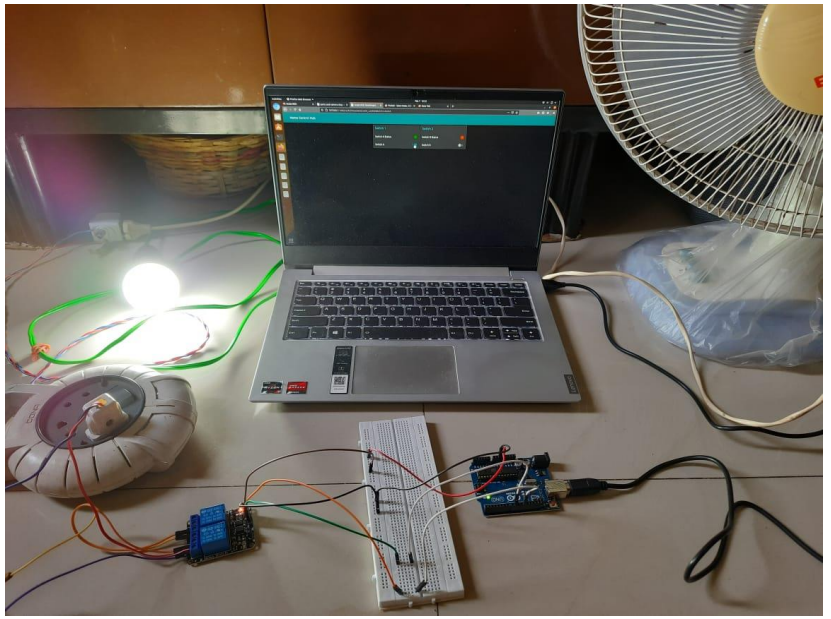
Photographs of the Hardware setup :-



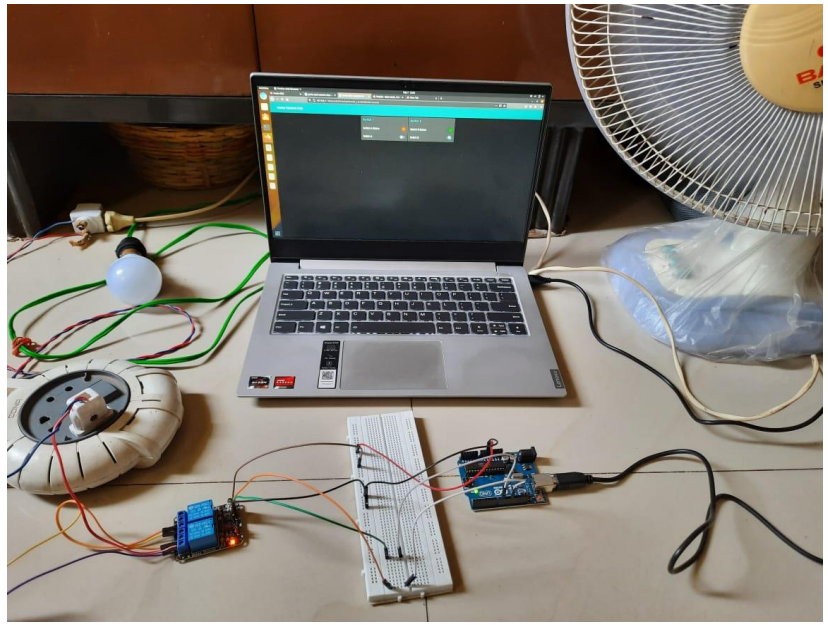




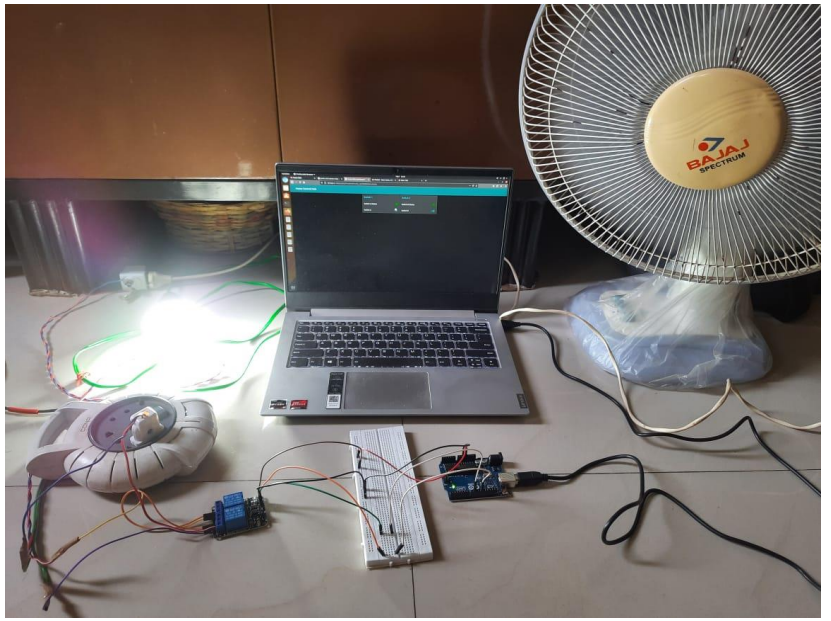
Both
Off



Light
On
Fan
Off



Light
Off
Fan
On



Both
On

OUR UNIQUE FEATURES:

Unique features of the product :-

- A wide range of appliances can be operated using the hardware set-up.
- Any brand of a given appliance can be operated using this product and there is no problem of cross-platform incompatibility.
- Low cost of this product is a plus-point. The total cost of this product is Rs.1000 which is negligible when compared to its utility.
- The product is consumer-friendly as it has a very simple interface.
- The voice control feature will be of great use for blind people.
- The Google Assistant understands both Hindi as well as English which increases the range of customers which can easily operate this product.

- The utility of mobile application can be very well understood by the fact that we do not have to physically go near the appliance for operating it , which is the case with today's maximum appliances.
- Take the example of a water geyser . Say that you are a few kilometres away from your home and wish to have warm water bath. In the way , you can turn the geyser on which will save your time. The same can be done for an air conditioner on a hot and humid day.
- Last but not the least, the virtual operation of home appliances can be done irrespective of any distance constraints. We have successfully operated the appliances across different Indian states without any appreciable time-lag.

We would like to thank all the professors and teaching assistants for giving us an opportunity to work together on our idea. We had a great time working as a team. All the team members were very supportive and we tried our best to ensure that all of us get an equal opportunity to contribute towards this idea. All in all we are happy that we could complete the project within the given deadlines successfully.

Thank You

Team 19