DIY Team Project Week-3

Project Name :-
Controlling Home Appliances remotely using Arduino
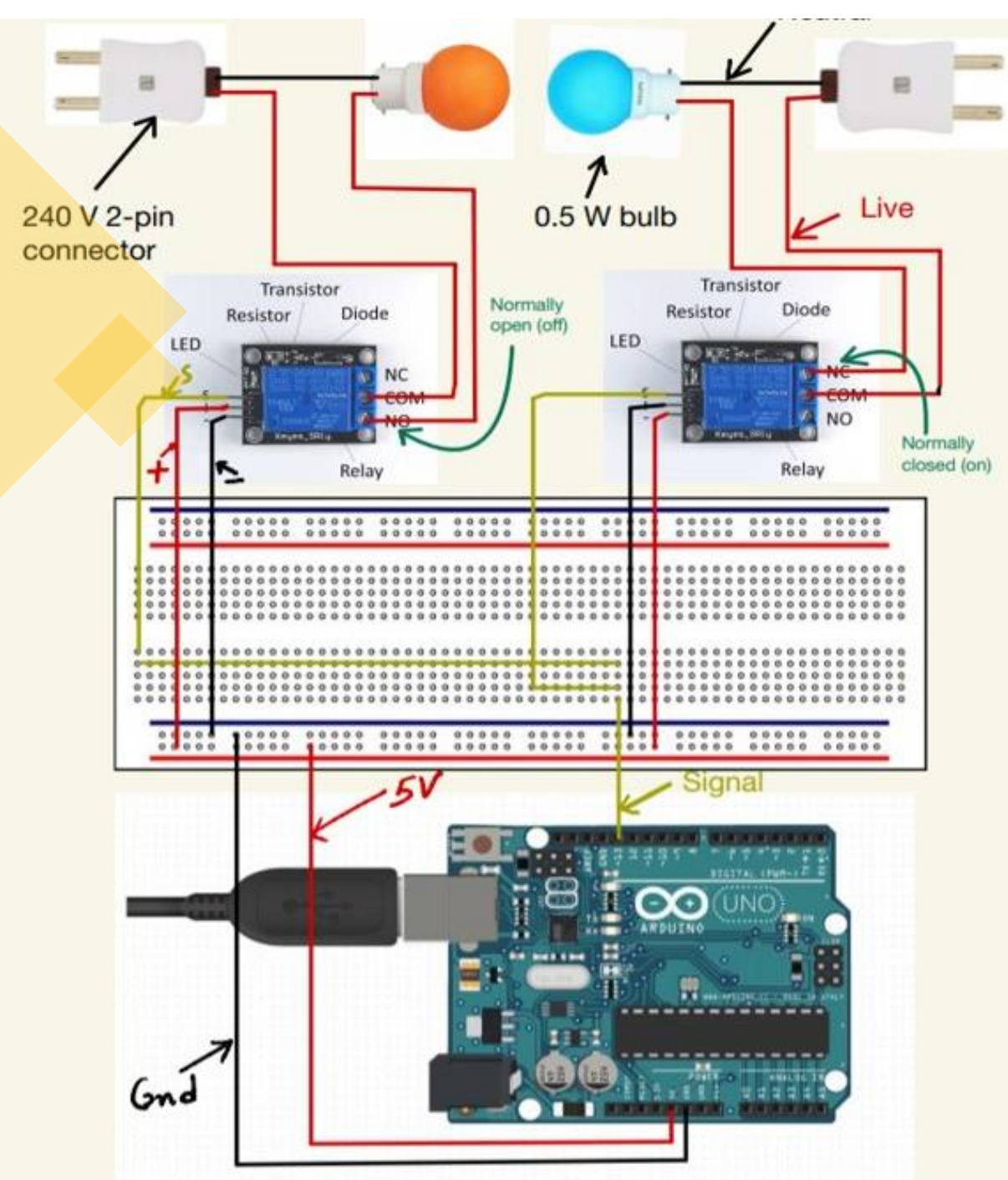
TEAM 19 :-
Chirag Ghosh (20CS10020)
Soni Aditya Bharatbhai (20CS10060)
Abhijeet Singh (20CS30001)
Gopal (20CS30021)

240 V 2-pin connector

0.5 W bulb

Live

Transistor
Resistor   Diode

LED

NC
COM
NO

Normally open (off)

Relay

Transistor
Resistor   Diode

LED

NC
COM
NO

Normally closed (on)

Relay

5V

Signal

Gnd

Schematic of the Product :-

We have assembled the hardware components according to the schematic mentioned in week 2. The hardware portion did not require any changes.
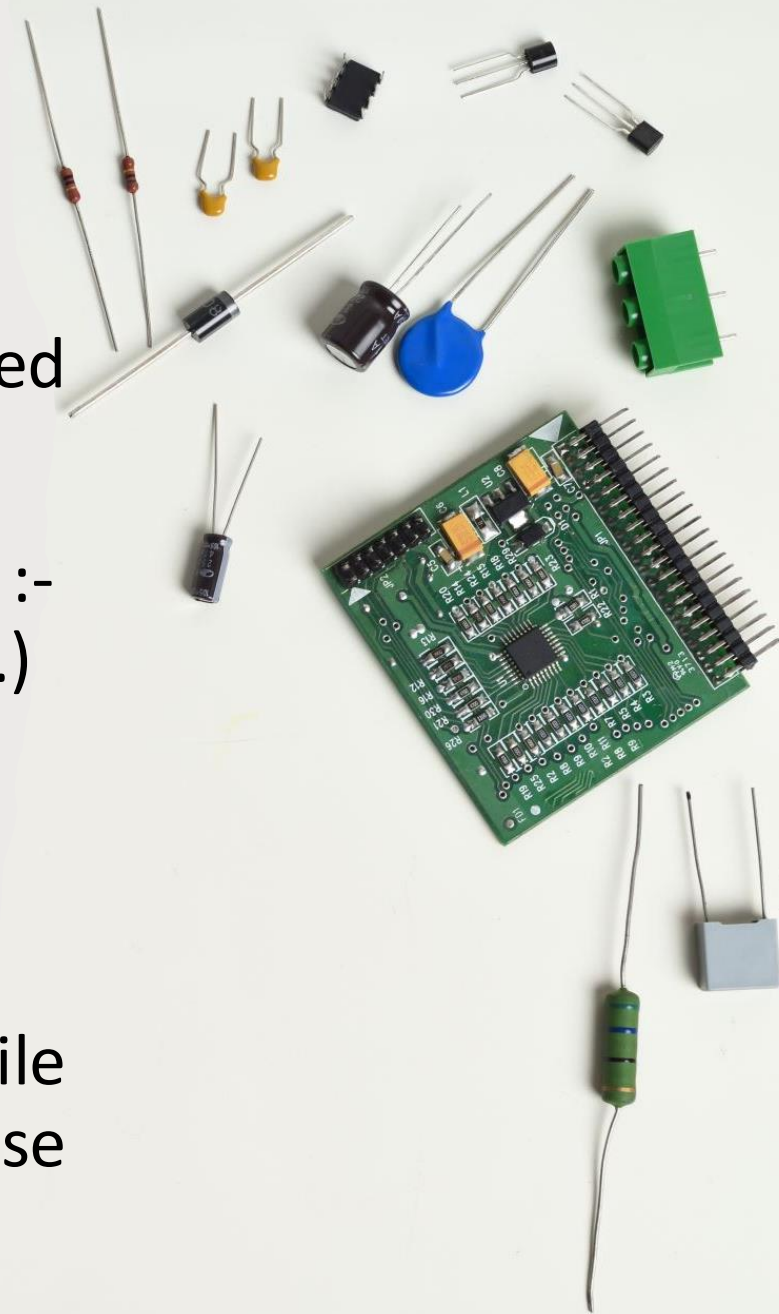
Details of the Hardware Setup :-

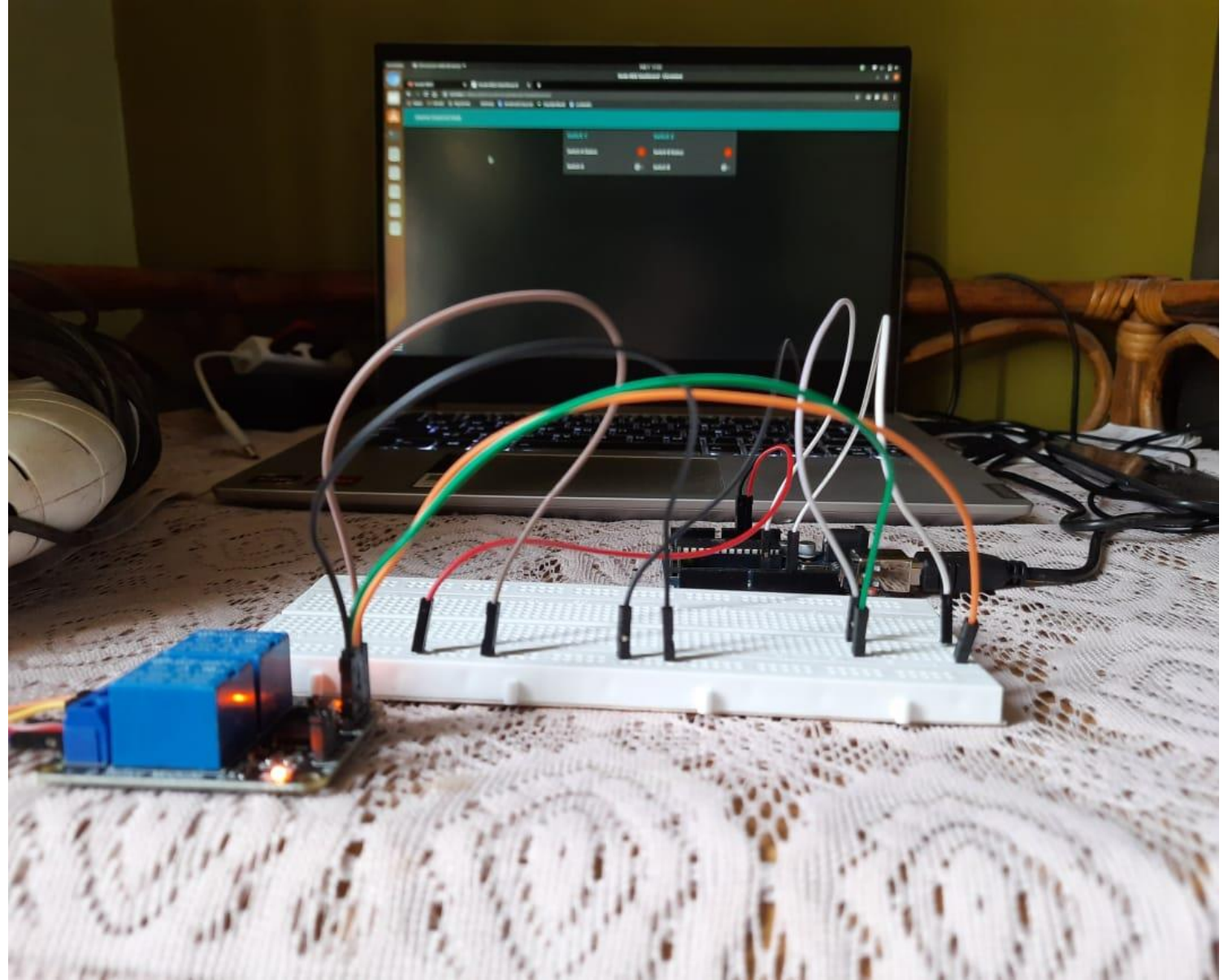The total Cost incurred is 1000 Rs. which will be divided equally among four of us.
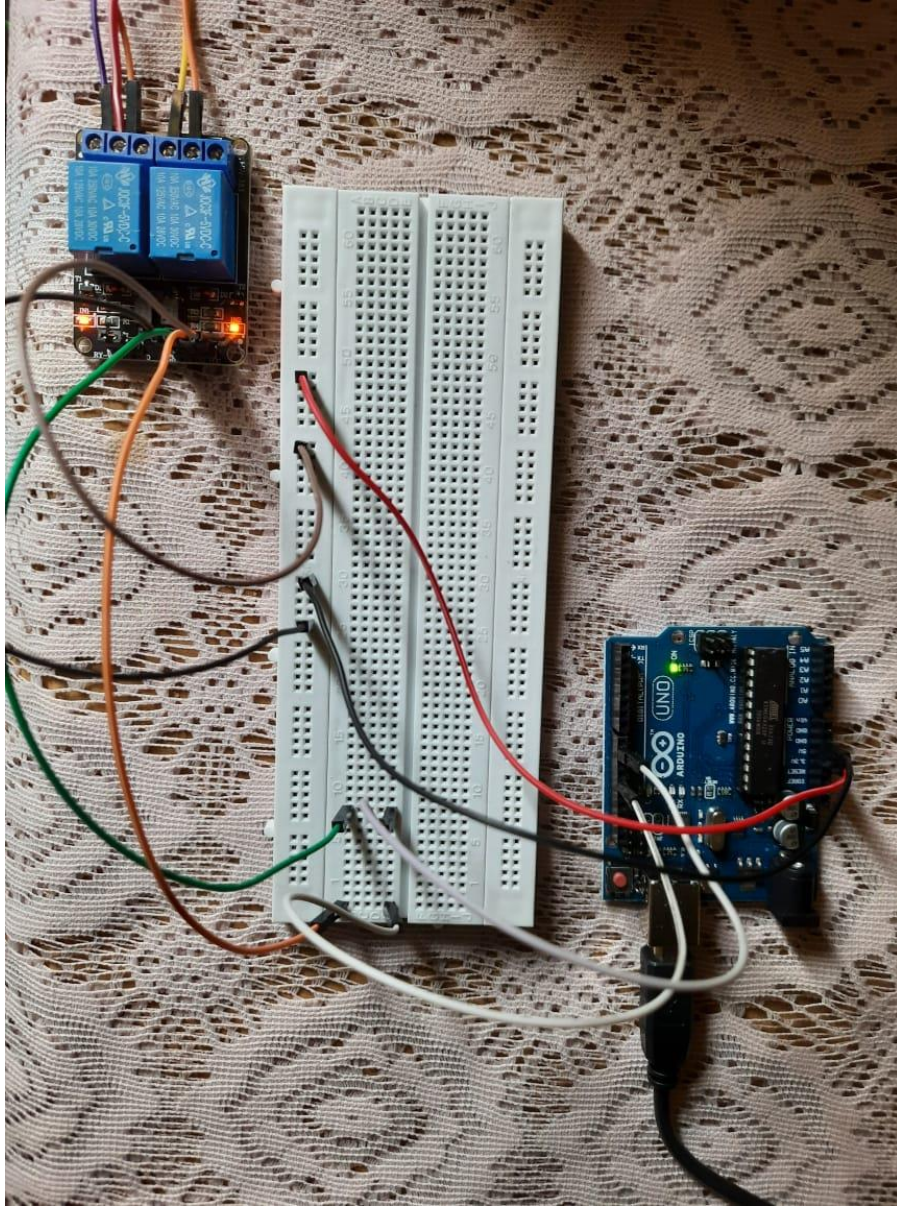
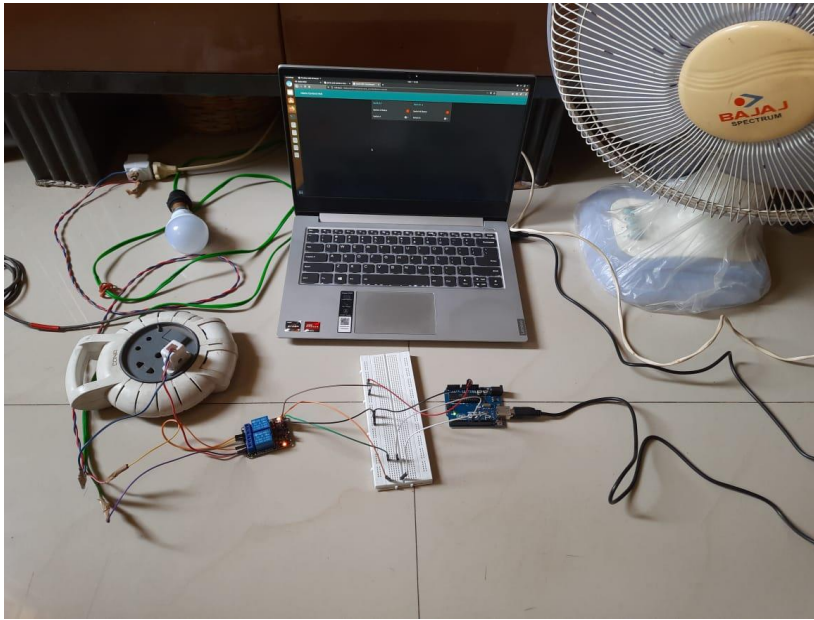The hardware components used for this project include :-
- Arduino Uno R3 Atmega328p With USB Cable (551 Rs.)
- 5V 10A 2 Channel Relay Module (125 Rs.)
- Breadboard and Jumper Wires Set (205 Rs.)
- Connecting Wire

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.
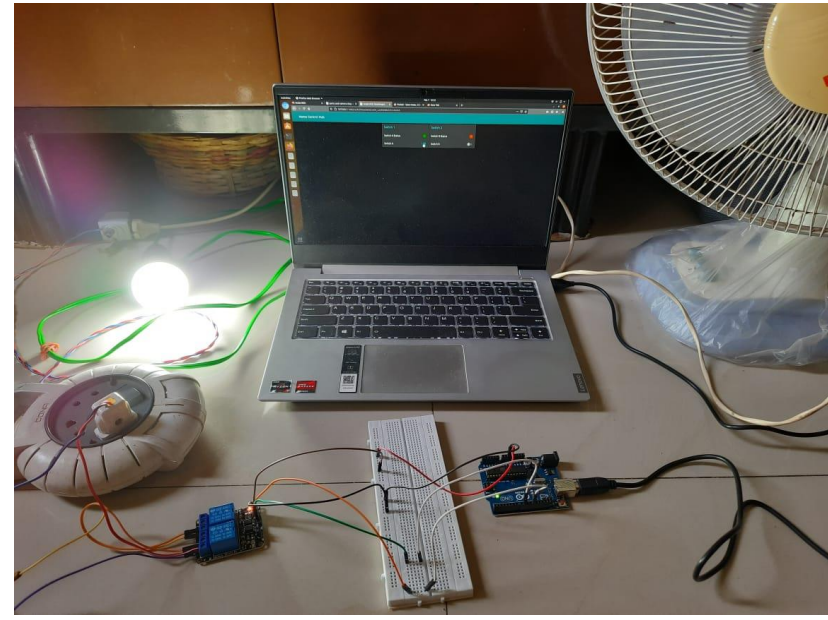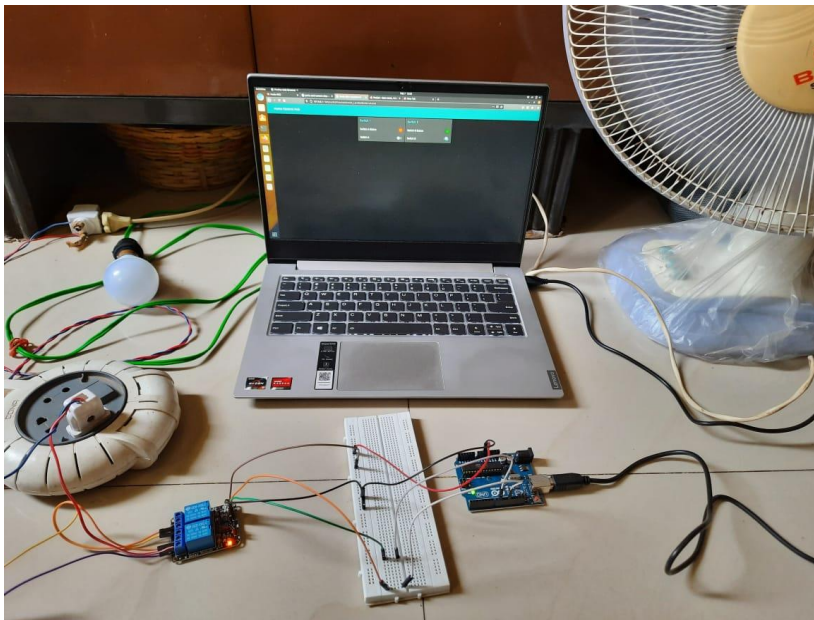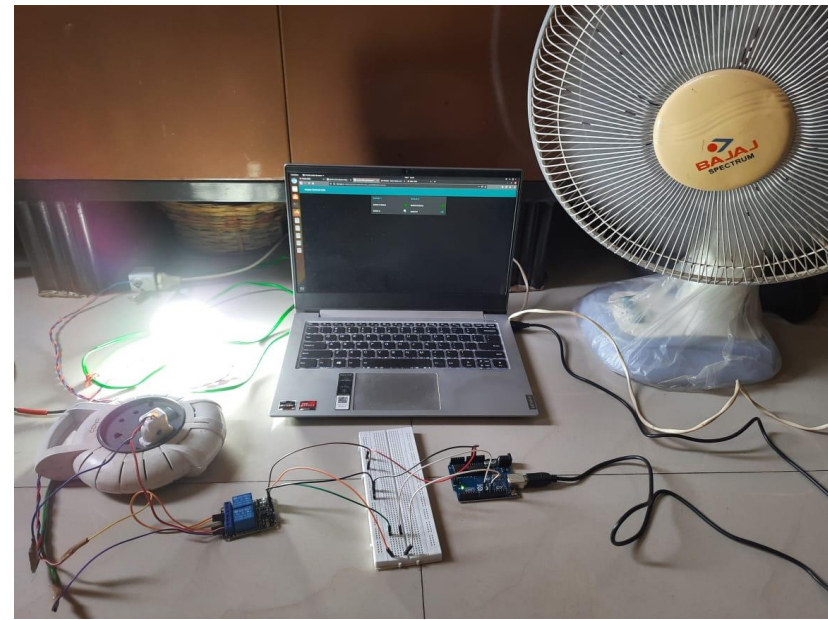
Photographs of the Hardware setup :-

Both
Off

Light
On
Fan
Off

Light
Off
Fan
On

Both
On

Issues faced on Hardware/ Software side :-

- Initially there was some fault in the connections, but we have solved this issue.
- The Nora server stopped working due to overload. Now we are using an updated version of the same server.

As of now all the issues have been resolved. The software and hardware of our project are working well.
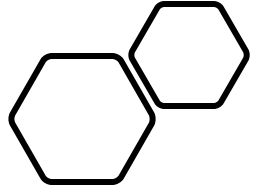
Overall Status :-

We have completed all the software and hardware aspects of the project. We have also tested the project for voice operation and switch button operation (Google Home). It is working well.

So we are left with the final video presentation and the remaining week 4 tasks.

Information on who has done what :-

- **Chirag** assembled the hardware Abhijeet , Aditya and Gopal joined virtually for assistance.
- **Gopal** did research on how the connections were to be made.
- **Aditya** and **Abhijeet** modified Node-RED dashboard and solved the software issues. They also did research on the possible appliances which could be used for the given hardware setup .
- **Gopal** has made the presentation and **Aditya** will be presenting in the class.

Thank You

Team 19