DIY Team Project

Project Name :-
Controlling Home Appliances remotely using Arduino

TEAM 19 :-
Chirag Ghosh (20CS10020)
Soni Aditya Bharatbhai (20CS10060)
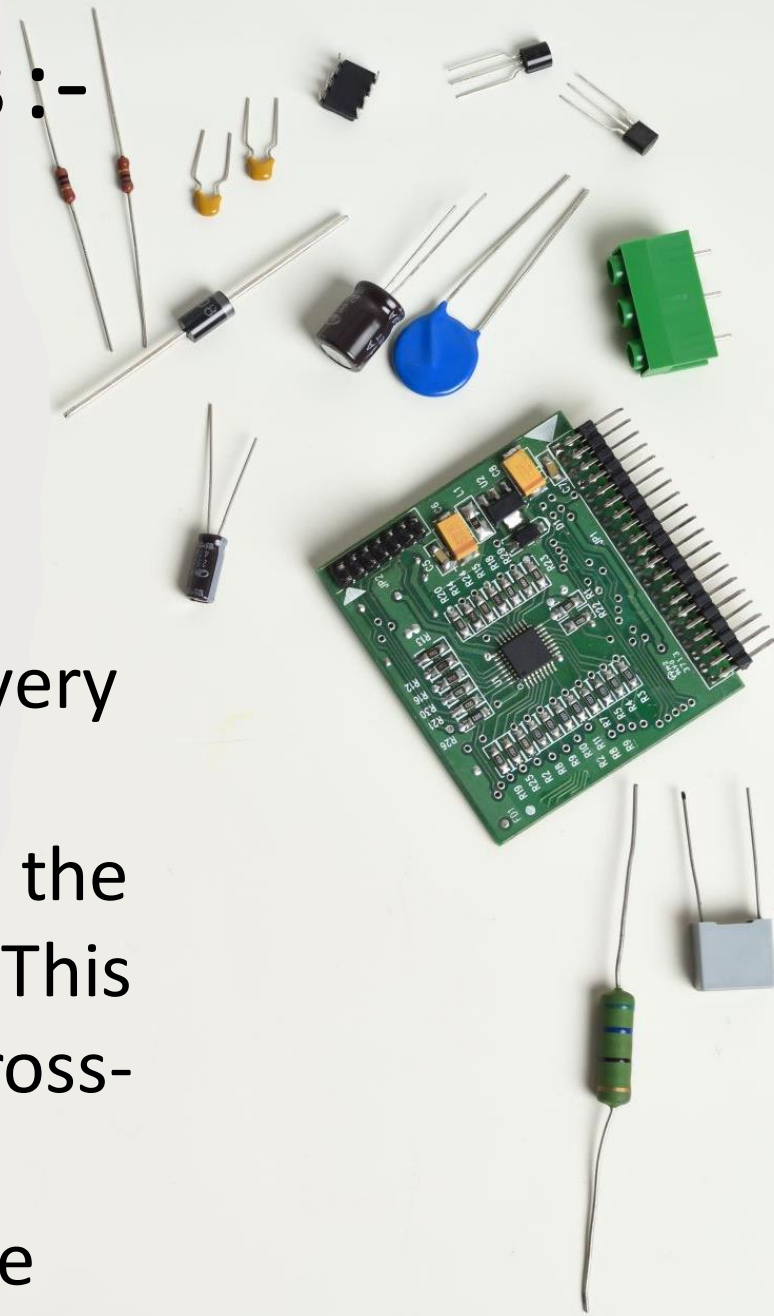Abhijeet Singh (20CS30001)
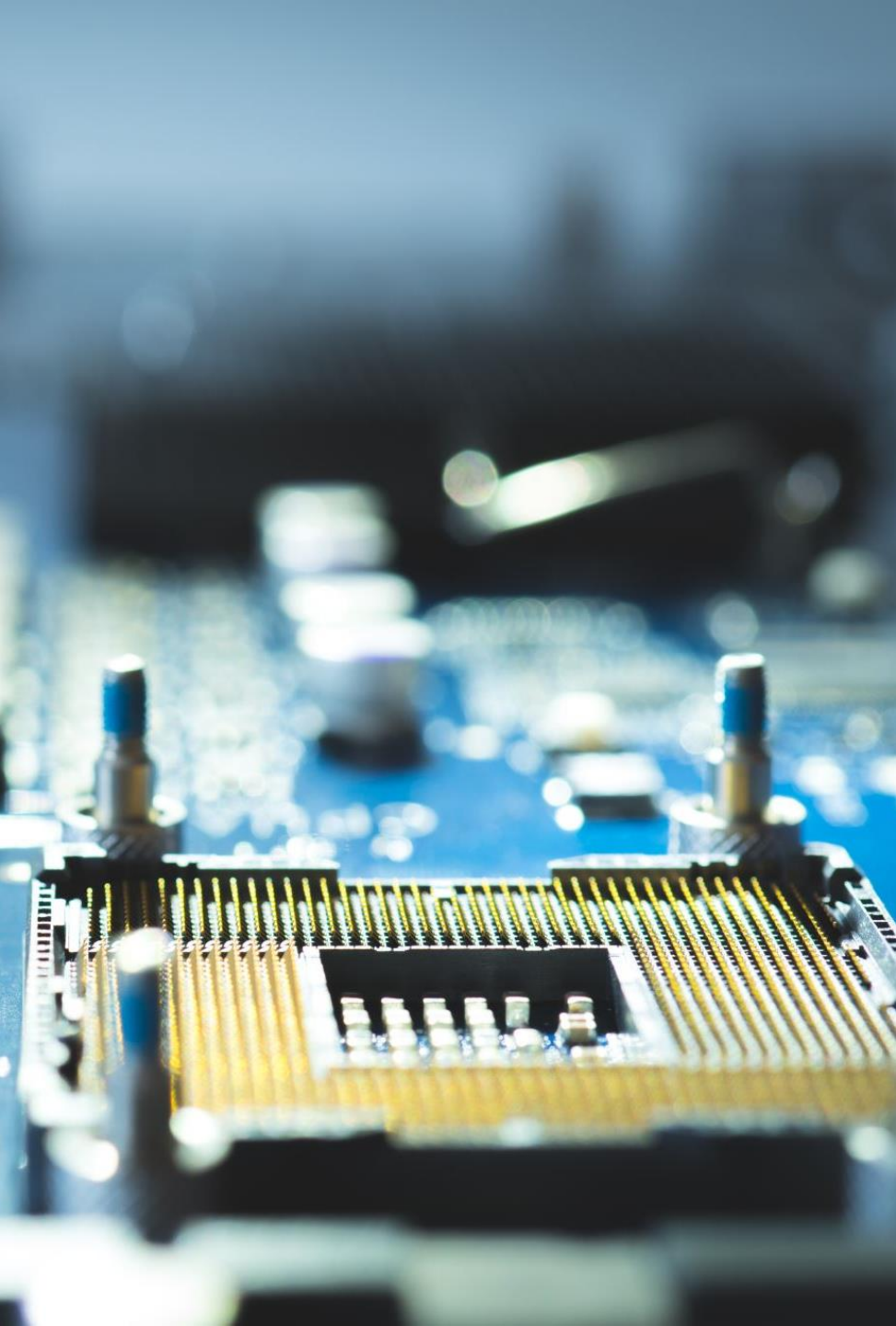Gopal (20CS30021)

Currently available technologies/solutions :-

Companies such as Google, Samsung, Apple etc. provide home ecosystem to operate home appliances using mobile phone and laptop remotely.
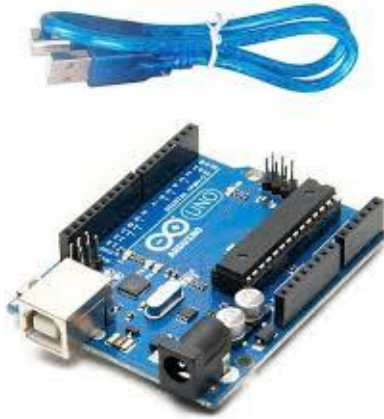
Drawbacks/Issues :-

- Most of the ecosystems available in the market are very expensive.
- It is highly unlikely that a customer will buy all the appliances of the same brand. This hinders smooth user experience due to cross-platform incompatibility.
- Majority of the existing home appliances do not have this feature of remote operation using mobile or laptop.
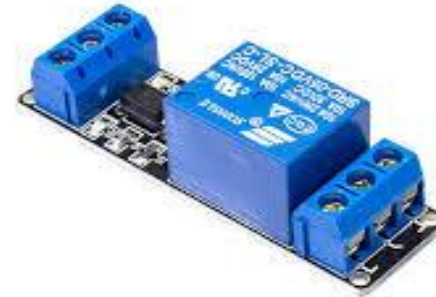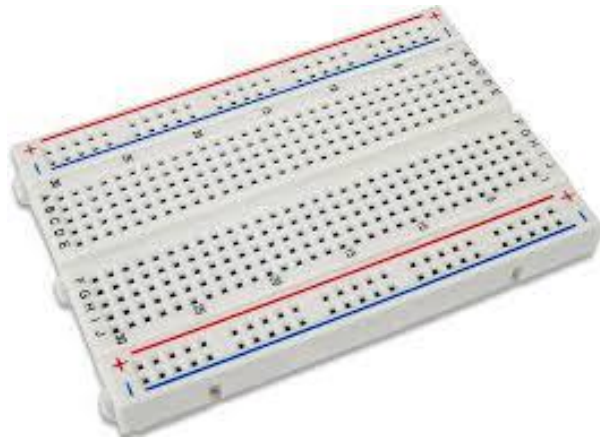
Proposed Solution :-

Our team is planning to use Arduino UNO Atmega 328P board and a couple of relays along with a breadboard. We will connect the Arduino board to the laptop. Using NodeRED server we will operate the home appliances remotely. We will use NGROK VPN so that appliances can be operated irrespective of the distance between consumer and the appliance.
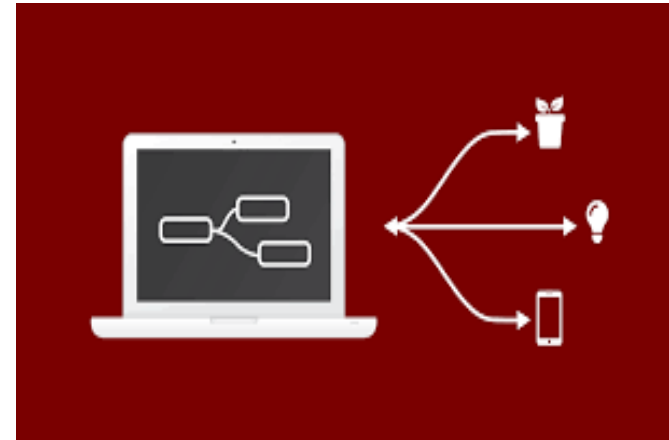
Arduino UNO R3 Atmega328

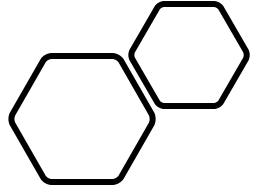**Relay**

Bread Board

NodeRED

Milestones and Timelines :-

- 28th January :- Ordering the required components after discussion with faculty.
- 4th February :- Writing the code in Arduino + Week 2 tasks.
- 11th February :- Assembly of hardware and testing the code + Week 3 tasks.
- 18th February :- Making all the required changes according the suggestions provided + Creating the video presentation of the Project.

TENTATIVE Work Sharing :-

- Setting up the Hardware :-
  Chirag Ghosh (others will join virtually)
- Writing, Compiling and Editing the code :-
  Soni Aditya Bharatbhai and **Abhijeet Singh**
- Preparation of NodeRED Dashboard :-
  Abhijeet Singh and **Gopal**
- Preparing the PowerPoint for weekly tasks :-
  Gopal
- Final video presentation :-
  All the team members
- Weekly presentation in class :-
  Soni Aditya Bharatbhai

Thank You

Team 19