

# Voice Controlled Appliances Project Report

## Introduction

The 'Voice Controlled Appliances' project is designed to control electrical appliances using voice commands. This innovation is particularly helpful for elderly or disabled individuals and contributes to the development of smart home automation.

## Objective

To design and implement a system that can control home appliances through voice commands using a microcontroller and speech recognition module.

## Components Required

- Microcontroller (e.g., Arduino UNO)
- Voice Recognition Module (e.g., Elechouse V3)
- Relay Module
- Electrical appliances (bulb, fan, etc.)
- Bluetooth Module (e.g., HC-05)
- Android device (for voice input)
- Power supply
- Jumper wires and breadboard

## Working Principle

The system uses a voice recognition module or smartphone voice input to convert spoken commands into signals. These signals are sent to a microcontroller via Bluetooth or serial interface, which then activates or deactivates the corresponding relay to control an appliance.

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## Circuit Diagram

(Insert circuit diagram here)

## Software Used

- Arduino IDE
- Android app for voice commands (e.g., Arduino Voice Control, MIT App Inventor app)

## Implementation Steps

1. Connect the voice recognition module or Bluetooth module to the Arduino.
2. Connect the relay module to control appliances.
3. Upload the code to Arduino.
4. Use the Android app to give voice commands.
5. Arduino interprets the command and switches the relays accordingly.

## Sample Voice Commands

- "Turn on light"
- "Turn off fan"
- "Switch off all appliances"

## Applications

- Home automation
- Smart homes for elderly and disabled
- Energy saving systems

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## Conclusion

This project demonstrates the practical application of voice-controlled technology in everyday life. It simplifies appliance control and is a step towards a smarter, automated future.