Clap Switch

Abstract:

- The clap switch project aims to create a sound-activated electrical switch using a microphone and a microcontroller.

- The system detects specific sound patterns, such as claps, to toggle an electrical appliance on or off.
- This project integrates hardware components like a microphone sensor and a microcontroller (e.g., Arduino) with software algorithms to process sound signals.
- The microcontroller analyzes incoming audio signals, identifies clap patterns through signal processing techniques, and triggers a relay to control the connected appliance.
- This design offers a hands-free alternative for controlling devices and showcases the practical application of sound-based sensor technology in home automation and human-computer interaction.