Gesture Control Bluetooth Speaker Arduino

Abstract:

- This project presents the development of a Gesture Control Bluetooth Speaker system using Arduino technology.
- The objective is to create an interactive audio device that can be controlled through hand gestures, enhancing user experience and accessibility. The system integrates an Arduino microcontroller with gesture recognition sensors to detect and interpret hand movements.
- The hardware setup includes an Arduino board, gesture sensors (such as an accelerometer or gyroscope), and a Bluetooth module for wireless connectivity. The Arduino processes data from the gesture sensor to recognize predefined hand gestures, such as swipes or taps.
- These gestures are mapped to specific commands for controlling the Bluetooth speaker, such as adjusting volume, changing tracks, or pausing playback.
- This technology has applications in smart home entertainment systems, accessibility devices, and interactive user interfaces.
- The project underscores the versatility and creativity achievable with Arduino-based electronics in consumer electronics design.