EXPERIMENT 26: CLAP ROBO

Objective:

The Clap Robot is designed to respond to sound (claps) by moving forward when a clap is detected. This user manual provides step-by-step instructions for setting up, operating, and troubleshooting the clap robot.

Hardware Setup:

- **Motors:**
  - Connect the left motor control pins (IN1 and IN2) to digital pins 8 and 9, respectively.
  - Connect the right motor control pins (IN3 and IN4) to digital pins 10 and 11, respectively.
- **Sound Sensor:**
  - Connect the sound sensor to digital pin 2.

Initialization:

In the **setup** section of the Arduino code, set the pin modes for the sound sensor and motor control pins.

Code Example: Clap Robot

Upload the provided Arduino code to the Arduino board. The code enables the robot to respond to claps by moving forward.

Usage Instructions:

- **Power On:**
  - Power the robot and ensure it is connected to the Arduino.
- **Clap Detection:**
  - The sound sensor will detect claps or loud sounds.
- **Motor Movement:**
  - If a clap is detected, the robot will move forward.
  - If another clap is detected, the robot will stop.

Expected Results:

- The clap robot should respond to claps by moving forward.

Note: For any doubts in the hardware connection please refer the link: Sound sensor connection .(Note: don't want to connect any resistor)

FAQs:

Q: How sensitive is the sound sensor to claps?

A: The sensitivity may vary. Ensure that the sound sensor is positioned in a way that it can detect claps effectively.