The CZN-15E is a type of microphone that converts sound waves into electrical signals. Here's how it works and how to adjust its sensitivity:

How a Microphone Works

Imagine sound as tiny waves of air pressure. When you speak, your voice creates these waves. A microphone captures these sound waves and converts them into an electrical signal.

The CZN-15E is a specific type of microphone called an electret condenser microphone. It has a small diaphragm that vibrates when it's hit by sound waves. These vibrations change the electrical charge on the diaphragm, creating an electrical signal that represents the sound.

Sensitivity Control

The sensitivity control on a microphone adjusts how strongly the microphone responds to sound.

- **Higher sensitivity:** The microphone will pick up even very quiet sounds. This can be helpful in situations where you need to capture faint sounds, but it can also make the microphone more susceptible to unwanted noise.
- **Lower sensitivity:** The microphone will only pick up louder sounds. This can be helpful in noisy environments, but it might not be able to pick up quiet sounds.

Using the Sensitivity Control

You can usually adjust the sensitivity using a knob or switch on the microphone itself, or through software settings if the microphone is connected to a computer or other device.

- **Start with a moderate sensitivity setting.**
- **Test the microphone:** Speak at a normal volume and see how well the microphone picks up your voice.
- **Adjust the sensitivity as needed:** If the microphone is picking up too much background noise, lower the sensitivity. If it's not picking up your voice clearly, increase the sensitivity.

Remember:

- **Experiment:** Try different sensitivity settings to find the best setting for your specific needs.
- **Consider the environment:** Adjust the sensitivity based on the noise level of the environment.

By adjusting the sensitivity, you can ensure that your microphone captures the sounds you want to hear while minimizing unwanted noise.

Everyday Uses of Sound Waves

Understanding Microphone Sensitivity

HOW TO USE MICROPHONES ON THE ARDUINO

How to Use a Microphone with Arduino?