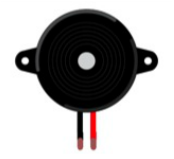
# Piezo Buzzer

A piezo buzzer is an audio signaling device that uses the piezoelectric effect to produce sound.

**Working Principle:**  
When a voltage is applied to a piezoelectric material (like quartz), it vibrates and produces sound. The frequency of the input voltage determines the pitch of the sound.

**Types**:  
- Active Buzzer (has internal oscillator, needs only DC)  
- Passive Buzzer (needs a signal to produce tone)

**Applications**:  
- Alarm systems  
- Timers and reminders  
- Notifications in devices   
- Toys and games

**Advantages**:  
- Low power consumption  
- Compact and lightweight  
- Easy to use with microcontrollers Fig: Piezo Buzzer

**Disadvantages**:   
- Limited volume  
- Monotone (usually fixed frequency in active buzzers)