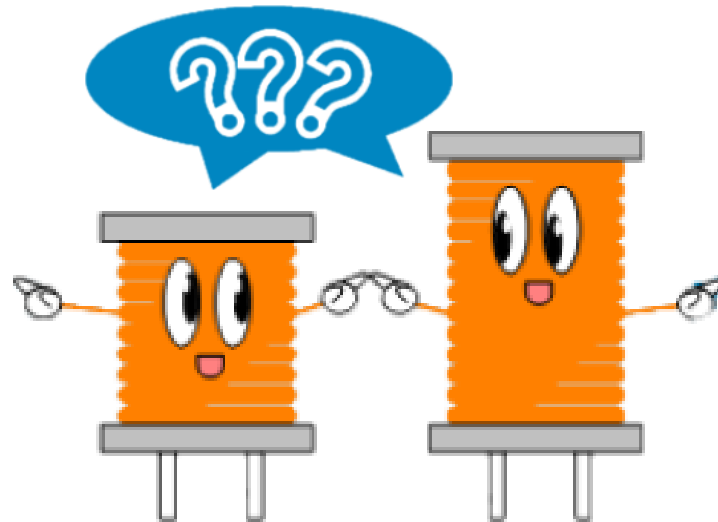


Dear Rookie of the Coil

Chapter 4 Coil's Functions 【 Filtering 】



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Coil's Functions "Filtering"

We will explain about one of functions "Filtering" in this time.



You can image the filtering generally...

What is the **Filtering** ?

It extracts the what you need,
and discard unnecessary one.



- Ex) Coffee filter⇒ For blocking ground coffee beans to pass through.
Air filter⇒ For removing dust and dirt and letting clean air to pass through.

Coil's Functions "Filtering"

"Filtering" for the Sound means
Extracting some components of the sound.

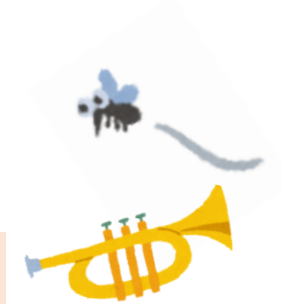


Break down one sound
into three components using filters.



**The Sound
at High Frequency**

Ex) The Mosquito noise, Trumpet



**The Sound
at Mid Frequency**

Ex) Female Voice, Violin



**The Sound
at Low Frequency**

Ex) Wood Bass



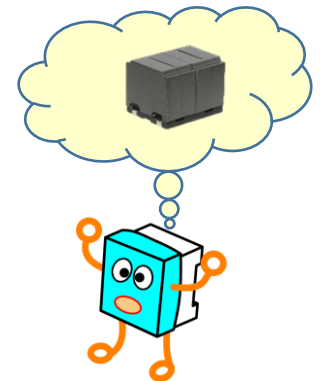
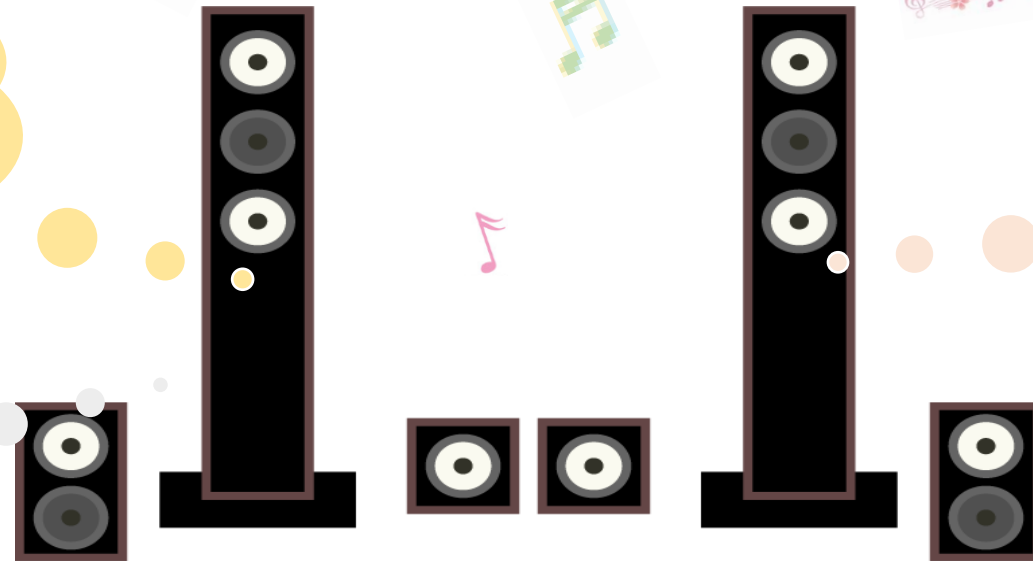
Coil's Functions "Filtering"

It only passes the specified frequency.

Band-pass filter(BPF)
It passes frequencies within a certain range and rejects frequencies outside that range.

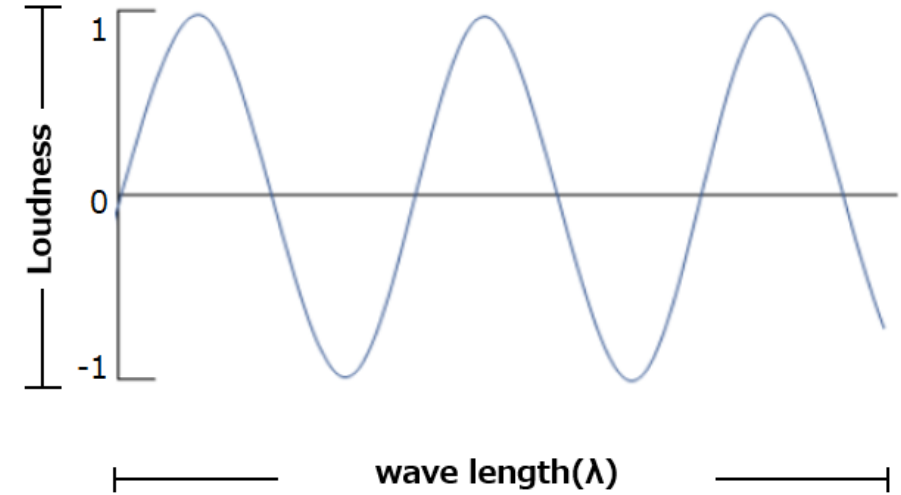
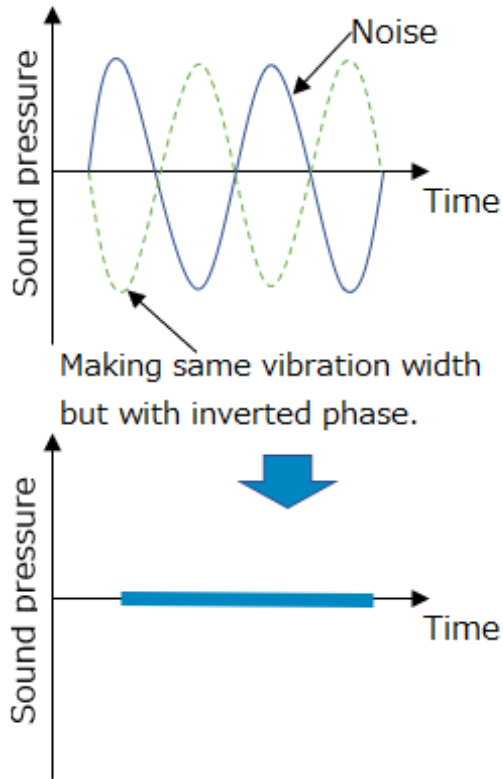
Low-pass filter (LPF)
It passes frequencies within a low range than certain frequencies.

High-pass filter (HPF)
It passes frequencies within a high range than certain frequencies.



It's a side note from coil...

Sound is figured by a waveform on the right.



The sound can be canceled by overlapping an inverted waveform on the original waveform.
(See left figure)

This principle is adopted for Noise canceling headphones.



To be continued...

