

Alarm sounds suitable for waking up

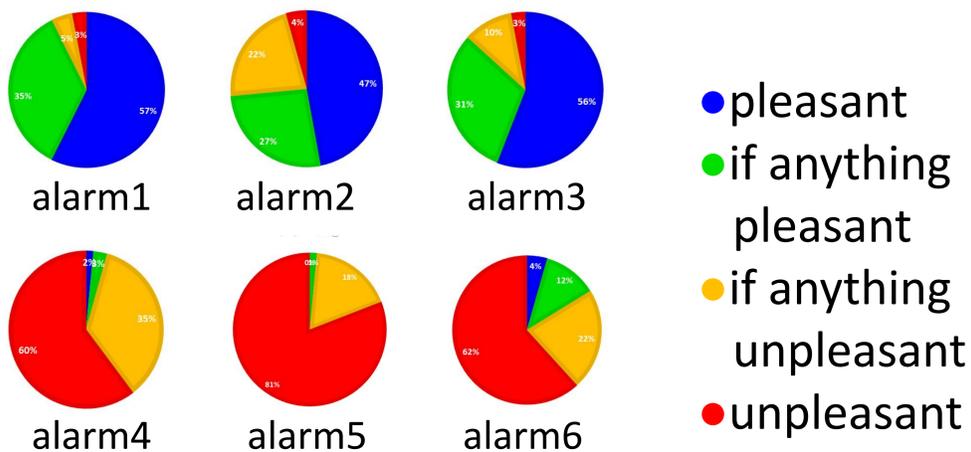
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Motivation

Sometimes we don't hear my alarm and can't get up.
Examine the characteristics of sounds that can immediately wake you up.

Questionnaire survey

Conducted a survey to find out how people feel about the 12 alarms on the app called "Alarmy."



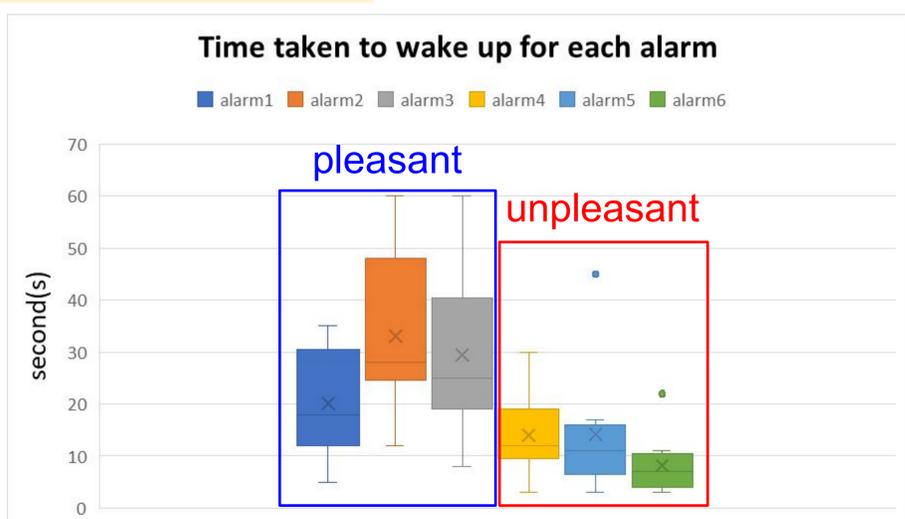
Research1

Six alarms were determined based on the questionnaire and the time it takes to wake up was measured.

Hypothesis

It is easier to wake up to unpleasant sounds than to pleasant ones.

Results1



Unpleasant sounds take less time to wake up than pleasant sounds.

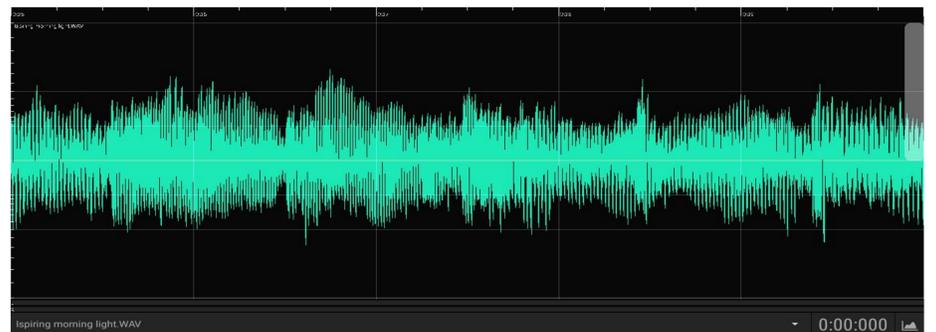
Research2

Examine the characteristics of sound waveforms. Waveform the sound using an app called "Wave Editor."

Hypothesis

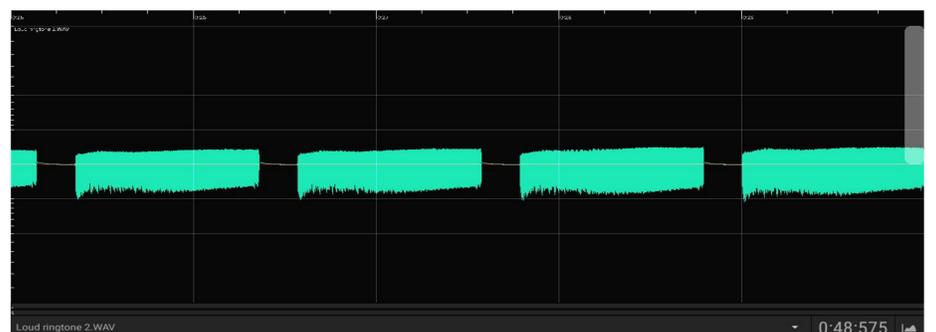
Unpleasant sound has high frequency and regular waveform.

Results2



Waveform of alarm1 for 5 seconds (The most pleasant sound in the survey)

- Pleasant sounds waveforms are irregular.
- Pleasant sounds are beautiful chords.



Waveform of alarm 5 for 5 seconds (The most unpleasant sound in the survey)

- Unpleasant sound waveforms are blocky and regular.
- Unpleasant sounds have a high frequency because of the dense waveform.

Conclusion

Sounds that are easy to wake up to are unpleasant, high frequency and regular in waveform.