

Concept Development

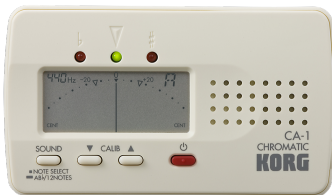
Problem Statement

Harmonizing is difficult to learn and it can be hard to know whether your harmony is in tune with the melody.

Proposed Idea

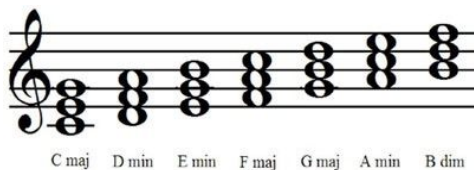
The Harmonizer is a handheld device that allows amateur singers to practice harmonizing with a given note or melody line. It will play a note for the user, display the note being played and the note that must be sung, and use a microphone to rate the attempted harmony as either sharp, flat, or in-key.

Influences



Chromatic tuner- Uses an internal microphone to hear notes, displays the name of the note being played, indicates how far from in-tune it is by the red lights at the top and the cursor on the screen.

Source: <https://www.amazon.com/Korg-CA1-Chromatic-Tuner/dp/B002PMHAVS>



Chord chart- Displays the notes that make up a chord on a musical staff



Qwik tune- Displays a chord and the chord chart for that chord. This is used for guitarists and shows the fingering on the 6 strings of a guitar.

Source: <https://www.amazon.com/Qwik-GP1-Guitar-Professor-Tuner/dp/B000M23OQ8>



Chromatic tuner- another style of tuner that clips on to surfaces and displays simply the note and the range of the note it is hearing, yellow indicating sharp and red indicating flat.

Source: <https://www.amazon.com/Snark-SN5X-Guitar->