

## Digital Tuner

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This final project will build a digital tuner. It will have a variety of independent functions and modules, utilizing a microphone, speaker, keyboard, mouse and FPGA, which can be added or eliminated given time constraints. It can take an audio input (some form of music) and output a note on a music staff to tell the user which tone it was, and a number corresponding to the matching key on a piano. It can playback a selected tone that a user requests, that has been previously recorded and stored in memory. It can also compare a selected tone with the inputted tone and tell the user whether they were too high/low. It can teach musically incompetent programmers to sing.