Musical Frequency Comparison Tool

My idea for has not changed much from the first proposal, if at all. Essentially frequency from a microphone is measured in real time and this data is used to move a cursor up or down on a screen. This way the musician, be it vocal or otherwise, has visual feedback as to their current pitch or note. The pitch-cursor could then be overlaid onto a moving musical staff, or perhaps something more like guitar hero seen sideways. The application could be used more for a musical learning tool, or as more of a musical game. The visual interface would be appropriate to whichever was chosen. Also, because I like the idea of using REAL musical staff and notes, I was thinking that color would be a nice way to illustrate sharps and flats? (since a sharp, natural and flat all lie in the same space) Lighter, warmer colors for higher frequencies, maybe?

To really implement the visual side of things, I could really use a partner with experience in graphical programming. I am currently taking ECE 437, (sensors and instrumentation, which ties quite nicely into this class) so I am learning the necessary aspects for the microphone and frequency analysis. This would make the pitch-cursor fairly easy to implement. But I personally don’t have much experience in graphical programming, which makes a scrolling musical staff very difficult.