

Two Extra FP Engineering Requirements

Music 19 | ECE 341

Customer Requirement: Make the project using cutting edge technology to help get an internship.

Engineering Requirement: Create a PCB for a project that can write to an FPGA in order to drive the visual portion of the project, distribute power, store song frequencies in solid-state memory and compute the FFT of a given song using digital logic, with all functions represented as a single state machine.

Customer Requirement: Have a pleasing visual display to accompany each song that is unique to that song

Engineering Requirement: Implement an audio visualizer of some kind within the box that changes its color according to the RGB values defined and uses stored frequency responses during playback to change the visual representation as a song plays.