

Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science
6.111 - Introductory Digital Systems Laboratory

Final Project Check Off Sheet

Project Title: Music Sculpting: Filtering

Student Name: Austyn Hill, Clare Davis, Chen Li

TA Name: Jenny Lee

TA Signature/Date:

Design

State transition diagrams, Block Diagrams, Code for Sound Control module, SRAM interface module, Video input module, and Input Analyzer module. (Austyn)

State transition diagrams, Block Diagrams, Code for FFT module, Filter modules and FSM that changes filter characteristics according to inputs. (Chen)

State transition diagrams, Block Diagrams, Code for FSM that determines access to the right RAM values and display module for music and filter (Clare)

Functionality

Demonstrate correct sampling, storing, and analysis of sound and video input working. (Austyn)

Demonstrate correct FFT of input, filters (high, low, and bandpass) coefficients, and interface of filters with video input working. (Chen)

Demonstrate correct video display for music and filter working. (Clare)

Demonstrate display and sound of correctly filtered input. (ALL)

Discussion

What kind of filters were used and why? How's various sampling between modules work? What was the most challenging part of your project?