

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 Composition for Dummies

Student Names: Yun Wu, Shi Ling Seow

TA Name: Charlie Kehoe

TA Signature/Date:

Design

- Overall block diagram
- State transition diagrams, Block Diagrams, Code for *Yun Wu*:
 - Audio RAM controller
 - FFT controller
 - Peak detector
 - Note-selecting ROM
- State transition diagrams, Block Diagrams, Code for *Shi Ling Seow*:
 - Major FSM
 - VGA

Functionality

- Demonstrate audio loopback and audio storage to RAM work.
Yun Wu
- Demonstrate FFT module working, and that notes are outputted. *Yun Wu*
- Demonstrate that video outputs selected notes. *Shi Ling Seow*
- Demonstrate that buffer between pitch detector and video is working and that the video displays the correct input notes

Discussion

- 1. What are the important timing issues in audio and video?
 2. How is the timing difference between the pitch detector and video resolved?
 3. What are the strengths and limitations of our design?