Massachusetts Institute of Technology Department of Electrical Engineering and Computer Science 6.111 Introductory Digital Systems Laboratory (Spring 2007)

Final Project Check Off Sheet

Project Title: XtremiX	
Student Names: Jehan deFonseka, Karen Chu	
TA Name: Javier Castro	
TA Signature/Date:	
System Level	
Fully integrated audio system that uses hand gestures to control recording and playback.	
Gesture System (Karen)	
State Transition Diagrams, Block Diagrams, Code for the Gesture System	
Interface with ADC's to read output from accelerometers and gyroscopes	
Process accelerometer and gyroscope data in order to produce gesture code outputs which correspond to rotational, translational, (volume motion, and frequency motion) gestures.	
Audio System (Jehan)	
State Transition Diagrams, Block Diagrams, Code for Audio System	
Store audio signal in ZBT RAM and playback audio by using buttons to play/record and switches to select memory location	
Play multiple signals from RAM at the same time, controlled as above	
Apply Z-transform filters to combine audio by using switches to enable and disable to filters	