6.111 Project Checklist
Team 7: Alex Chen, Abraham Shin, and Yuqing Zhang

3D Air Hockey

Module	Commitment	Goal	Stretch Goal
Object recognition	* Generate positions of the two mallets on the playing field * The player should be able control the direction of movement of the virtual puck	* Generate and test mallet positions with various smoothing techniques * The player should be able to control the puck with exposure to little to no noise	* Generate and test mallet positions with more advanced position sensing algorithms like for mousepad control * The player should be able to finely control the puck across the whole board without having to move his hand across the whole playing field.
Physics Engine	* Properly detects collisions between a mallet and a puck * Properly updates puck velocities upon collision (without momentum)	* Accurate collisions and post-collision velocities (incorporating momentum)	* Friction * Big stretch => angular velocity and angular momentum of puck
Game Logic	* Keeps track of playing/non-playing states (demonstrated via the pause/unpause button)	* Updates score when puck moves into goal	* Split game into multiple sets, each with a timer on each set * Replay goals when a goal is scored and the replay button is pressed * Sounds on collision and maybe during movement
Graphics	* Displays a perspective view of a table * Displays two	* Displays the game and integrates with the rest of the components	* 3D graphics with shading (maybe via basic ray tracing)

	moving mallets and a moving puck * Displays the score of each player	* Features a "goal scored!" screen and other informational text beyond scores	
Overall	*** Functional individual components**	*** Playable air hockey game (pucks respond to mallets, goals are tracked)**	*** Playable air hockey game, with sounds and the goal replay feature**