1 Project Checklist

1.1 Display Logic
◊ Display static level with ball, walls and holes.
◊ Correctly displays level changes.
◊ Correctly displays moving ball.
◊ Correct display priority for ball, holes and walls.

1.2 External Interfaces
◊ Working write to ADC FSM
◊ Working read from ADC FSM
◊ Working overall ADC FSM
◊ SPI interface works and ADC correctly samples data

1.3 Physics Unit
◊ Correctly converts sampled data to FSM-compatible acceleration signals

1.4 Collision Detection FSM
◊ Correctly computes new velocity data based on acceleration signals.
◊ Correctly handles collision detection with walls.
◊ Correctly handles collision detection with obstacle holes.
◊ Correctly handles collision detection with target holes.

1.5 Memory Interface
◊ Correctly mediates memory accesses from FSM and Display Logic.

1.6 Calibration
◊ If needed, calibration text display
◊ If needed, calibration of accelerometers provides feedback on proper measurements
◊ Correctly handles level transitions.
◊ Correctly updates state of game.

1.7 Extensions
◊ Velocity decreases due to friction
◊ Physics unit models rotational inertial and friction
◊ “Stargate” holes
◊ Implement design on a starter board