

Appendix A

Current State	Next State	Condition
Idle	Has line of sight	The enemy must be deemed to have line of sight of the player which can be found by accessing its pointer. If the pointer has nothing pointing to it then it can be deemed as having line of sight.
Idle	Can break away to the right	The enemy is initialised by the program to be able to break away right. Also if the enemy position does not exceed the breakaway threshold then this transition can occur.
Idle	Can break away to the left	The enemy is initialised by the program to be able to break away right. Also if the enemy position does not exceed the breakaway threshold then this transition can occur.
Idle	Destroyed	If a collision has occurred between an enemy and the players laser.
Has line of sight	Fire laser	If the probability to fire is \geq the probability of a specific enemy firing.
Has line of sight	Destroyed	If a collision has occurred between an enemy and the players laser.
Fire laser	Has line of sight	After an enemy has fired a laser it immediately returns to its previous "has line of sight" state.
Fire laser	Destroyed	If a collision has occurred between an enemy and the players laser.
Can break away right	Break away right	If the probability of an enemy breaking away is \geq the probability produced by the probability generator.
Can break away right	Can't break away right	If the enemy position falls outside of the breakaway thresholds.
Can break away right	Destroyed	If a collision has occurred between an enemy and the players laser.
Can't break away right	Can break away right	If the enemy position falls inside of the breakaway thresholds.
Can't break away right	Destroyed	If a collision has occurred between an enemy and the players laser.
Break away right	Return to screen	If the enemy has reached the bottom left hand corner of the screen without dying.
Break away right	Destroyed	If a collision has occurred between an enemy and the players laser.
Return to screen	Can't break away to the right	If the enemy has reached its position in the enemy pack.
Return to screen	Can't break away to the left	If the enemy has reached its position in the enemy pack.
Return to screen	Destroyed	If a collision has occurred between an enemy and the players laser.
Can break away left	Break away left	If the probability of an enemy breaking away is \geq the probability produced by the probability generator.

Can break away left	Can't break away left	If the enemy position falls outside of the breakaway thresholds.
Can break away left	Destroyed	If a collision has occurred between an enemy and the players laser.
Break away left	Return to screen	If the enemy has reached the bottom left hand corner of the screen without dying.
Break away left	Destroyed	If a collision has occurred between an enemy and the players laser.
Can't break away left	Can break away left	If the enemy position falls inside of the breakaway thresholds.
Can't break away left	Destroyed	If a collision has occurred between an enemy and the players laser.