**Collin Fingar + David Vanderzee**

**Homework 6: Decision Making**

**November 19, 2015**

Best PacMan start locations:

Map 1: Top-Middle Chamber, Top-Right Chamber, Bottom-Right Chamber, Far-Left Chamber

Map 2: Top-Left Chamber, Top-Right Chamber, Bottom-Middle Chamber, Far-Right Chamber

**Ghost Finite State Machine:**

Chase Pacman

Move Randomly

If Pacman is very far

If Pacman is very far

If Pacman is very close

If Pacman is semi-close

If Pacman is very close

If Pacman is semi-close

Move in PacMan’s general direction

**Ghost Decision Tree:**

Is Pacman Close?

**No**

**Yes**

Is he one tile away?

Is he very far away?

**No**

**No**

**Yes**

**Yes**

Move in his general direction

End Game

Move Randomly

Chase Him

**PacMan Finite State Machine:**

Continue eating current group of pellets.

Go after pellets in a farther away area.

Is closest ghost very close?

**PacMan Decision Tree:**

**No**

**No**

**No**

**Yes**

**Yes**

**Yes**

Is it very far away?

Run Away

End Game

Is it one tile away?

If nearest ghost is semi-close

If nearest ghost is semi-close

If nearest ghost is very close

If nearest ghost is very far

If nearest ghost is very close

If nearest ghost is very far

Eat Pellets

Run away from ghost

Move to eat pellets away from closest ghost