

Artificial Intelligence for Video Games

DrunkStride

Project due Jan. 18, 2024

Goal

The goal of this project is to create an agent roaming on a platform while never moving along a straight line.

Setup

The platform can be of any size; square or rectangular.

The agent will change trajectory at random intervals. Each time the agent will travel over a circumference leading first to right then to the left, then to the right again ... and so on.

The agent is moving at a constant speed of 1 meter per second.

At each interval, the agent will pick a random value for the time to the next trajectory change in the range $(0, 10]$ seconds. Note that 0 is excluded.

Then, the agent selects a random circumference leading right or left with a radius between 0 (excluded) and the maximum radius that is not making the agent fall off the platform.

The selection of the radius is independent from the time of the next trajectory change.

The agent never stops moving.

Constraints

The system must work independently on the platform shape or size.