

AI Proposal

COMP250 AI Proposal

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1 Overall Concept

Integration into comp150 SDL game. My plan is to modify the current game to be a spaceship with different facilities on board, such as beds, toilets etc..

A similar kind of AI that I am aiming for is like the Sims AI but less player controlled.

This AI project will have several agents in the game, these agents will have needs that they will have to seek out when they go below a set threshold. They will have to calculate a path to the nearest facility that is unoccupied.

(A bar that the user can control to prioritise the crew to look after themselves or the maintenance of the ship)??

2 Functionality

Within this ship there will be agents that will have needs such as:

- Hunger
- Sleep

- Health
- Toilet

The ship will have facilities that the agents can use.

Facilities such as:

- Beds
- Toilets
- Medbay
- Kitchen

After this I could possibly work on giving the agents some basic jobs, such as:

- Cleaner
- Maintenance
- Farmer(for hydroponics)
- Medic

3 Key Requirements

A* Pathfinding.

Some sort of behavior/decision tree?

A fair bit of modification to the current game to optimize and simplify the engine for lots of agents, and strip out any of the unused functionality in the game.