

AI Vacuum Cleaning Assignment

Group members

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Description

This short report documents our work and findings on the implementation of the smart AI Vacuum cleaner agent AI in python. The agent operates in an environment with two rooms: room A and room B, where each room could either be Clean or Dirty.

The environment starts with random room states, and dirt may appear randomly while the agent is moving, but precisely, after current execution.

Agent Behaviour

The agent perceives its current location and whether the room is clean or dirty.

- If the room is Dirty → the agent performs the *Suck* action.
- If the room is Clean → the agent moves to the other room.

The system prints the robot's location, perception, action taken, and the environment state before and after each move.

Difficulty Level

This project is a Hard implementation because the environment changes randomly while the agent is operating.