

CSc 84020 Homework 2

1. Using the STRIPS formalism, write down the operations available to the agent from the “vacuum world” of Lecture 3 and the last homework.
(25 points)
2. Given these operations, how might you specify the vacuum world agent as a practical reasoning agent, that is an agent which executes the kind of interpreter (say Control Loop Version 3) from the notes for Lecture 5?
(25 points)
3. How would you have to modify the set of STRIPS descriptions of the agent’s actions to take account of obstacles, where the obstacles have the same properties as in the previous homework, and the sensor to detect them is again noisy?
(25 points)
4. How would you have to the agent’s control loop to take account of the obstacles? How would this change if the sensor to detect the dust was noisy?
(25 points)