Homework 2: JASON

Collecting Garbage

- The scenario used here involves two robots that are collecting garbage on **planet Mars**. **Robot r1** searches the whole environment (represented as a grid) for pieces of garbage. When one is found, it takes it to the centre of the grid, where there is an incinerator. Robot r1 then goes back to the place where the last piece of garbage was found and continues the search from there. **Robot r2** is situated at an incinerator. Whenever garbage appears in the incinerator, r2 just burns it. The action of picking up garbage may fail, but it is assumed that the mechanism never fails more than twice; that is, in the worst case robot r1 may pick up a piece of garbage three times, but by then r1 will definitely have grabbed it.

- Example code from jason/example/cleaning-robots

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Perform the following tasks incrementaly.

0) Study the example: use Run and Debug options.

1) Include more indeterminism in the environment:
   a) Randomly scattering some pieces of garbage on the grid.
   b) Randomly placing the incinerator (together with r2) on the grid.
   c) Randomly placing r1 on the grid.

2) Modify r2 agent to fail as r1 when picking up the garbage.

3) Modify r1 agent for changing its searching path:
   a) Scanning top-down instead of left-right.
   b) Scanning continuously.

4) Include a new crazy Robot r3 that moves and produces garbage randomly.

5) Include a new task at your choice.

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Homework 2 will be delivered in a zip file.
Include a short readme.txt describing your changes for each task.

Deadline: October 29, 2018
Presentation and evaluation: October 25 and 29, 2018