

Continuing the room-sweeping task that we worked on in Project 1. Suppose now the room is of irregular shape and of random size. There is also an obstacle of random size and shape in the middle of the room. Karel starts in his house facing north, as shown in the figure above. His task, again, is to clean the room (pick up all the beepers), then return to his starting location, dump all the beepers on the ground, then shut off at (1,1) facing north. Keep in mind that, we will never know where exactly are the beepers located, nor what the room looks like before Karel is deployed to his new task. In other words, your robot algorithm will need to be able to clean any irregular shaped room no matter where and how the beepers are located.

Grading Scheme

The 85% for solving the problem correctly will be distributed as follows:

1. Your program must solve the problem stated above. It must compile without errors, perform the task correctly, and end with a turnoff command not an error message. The score you earn will depend on how clean the room is during testing.(50 %)
2. You must create 3 new instructions of your choice, then use them in your program. (15 %)
3. You must use at least 3 WHILE commands to solve the problem. (20%)