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## PROBLEM 4: RANDOMWALKROBOT CLASS  (10 points possible)

iRobot is testing out a new robot design. The proposed new robots differ in that they change direction randomly **after every time step**, rather than just when they run into walls. You have been asked to design a simulation to determine what effect, if any, this change has on room cleaning times.

**Write a new class** `RandomWalkRobot` **that inherits from** `Robot` **(like** `StandardRobot` **) but implements the new movement strategy.** `RandomWalkRobot` should have the same interface as `StandardRobot` .

**Test** out your new class. Perform a single trial with the `StandardRobot` implementation and watch the visualization to make sure it is doing the right thing. Once you are satisfied, you can call `runSimulation` again, passing `RandomWalkRobot` instead of `StandardRobot` .

Enter your code for classes `Robot` and `RandomWalkRobot` below.

```
1 # Enter your code for Robot and RandomWalkRobot in this box
2
```

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