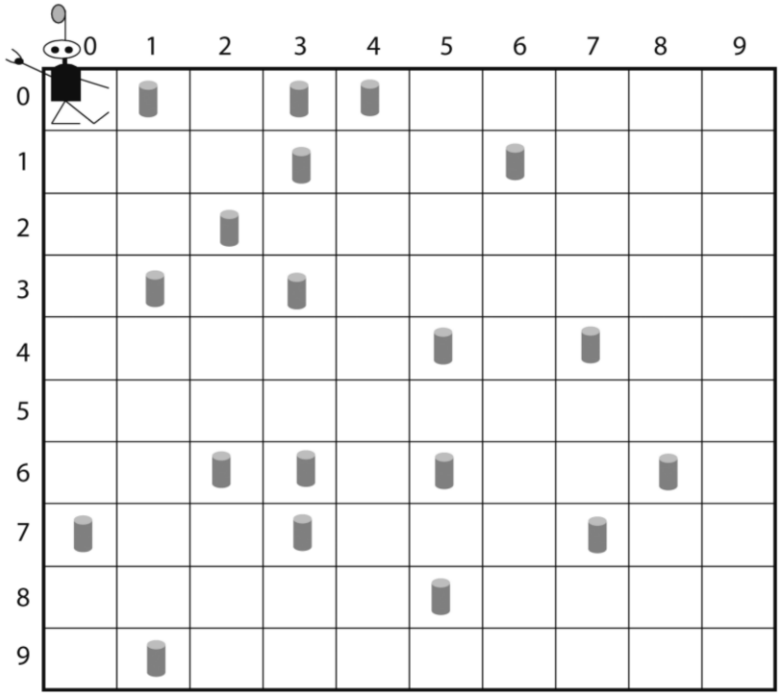
Robby the Robot's World



- Robby lives in a simulated 2D world strewn with discarded drinks cans.
- Robby's eyesight isn't great – he can see what's in the square he's standing in, along with what's in the squares to the north, east, south and west.
- He can see that a square is:
  - Empty
  - Contains a drinks can
  - Contains a wall (if he's at the edge of the grid)
- He can perform one of the following actions at a time:
  - Pick up can
  - Move north
  - Move south
  - Move west
  - Move east
  - Move in random direction
  - Do nothing

Robby is awarded 10 points every time he picks up a can. But he loses 1 point if he tries to pick up a can from an empty square. He also loses 5 points if he walks into a wall.

From: Complexity: A Guided Tour by Melanie Mitchell, 2009, 2009 by Oxford University Press, USA, p131

Challenge: Create Your Own Robot Brain

- I have shared Python code that includes a simulated environment for Robby the robot can picker.
- It also includes several “robot brains” including Random Robby and some smarter ones.
- Examine the code for these and then create your own robot brain that does better than mine!