## Chapter 1 - Algorithms and Abstractions\Robot Mazes\Sequencing\Sequencing HW (STUDENT)\Sequencing HW.html

```
<!DOCTYPE html>
 1
 2
 3
    <!--
 4
 5
     * Maze Simulator (c) by Christopher Grattoni
     * Maze Simulator is licensed under a
 6
     * Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.
 7
 8
     * You should have received a copy of the license along with this work.
 9
     * If not, see <a href="http://creativecommons.org/licenses/by-nc-sa/4.0/">http://creativecommons.org/licenses/by-nc-sa/4.0/>.
10
11
     * Last Edited: Aug 9, 2017
12
     -->
13
14
15
    <html>
16
    <head>
17
        <title>
18
            Robot Maze Simulator
        </title>
19
20
        <style>
21
22
            canvas{
23
                 background: #000000;
24
            }
        </style>
25
26
        <script type="text/javascript" src="maze.js"></script>
        <script type="text/javascript" src="speed.js"></script>
27
28
        <script type="text/javascript" src="security.js"></script>
        <script type="text/javascript" src="movementfunctions.js"></script>
29
        <script type="text/javascript" src="engine.js"></script>
30
        <script>
31
32
            /**
33
34
              * 1) READ THIS ENTIRE COMMENT
35
              * 2) AFTER READING, YOU MAY DELETE THIS COMMENT
              * 3) INSERT YOUR OWN CODE HERE TO CONTROL YOUR ROBOT.
36
              * 4) YOUR GOAL IS TO GET YOUR ROBOT TO THE GRAY SQUARE.
37
38
               Functions you can use:
39
40
                     moveForward(): The robot will move forward
                         by one square relative to the direction
41
                         it is currently facing. If you move into
42
43
                         a white square, the game continues.
                         If you move into a gray square, you win.
44
45
                         If you try to move into a black square,
                         you lose the game.
46
47
                     rotateRight(): The robot will rotate to the
48
                         right relative to its current orientation.
49
50
                     rotateLeft(): The robot will rotate to the
```

```
52
                          left relative to its current orientation.
              *
 53
              *
 54
                      goalReached(): The function returns true if
                          you have reached the end of the maze. It
 55
 56
                          returns false if you are still in a white
                          square. This function can only be called
 57
 58
                          100 times per maze to try to prevent the
 59
                          game from crashing.
 60
                      canMove(direction): This function returns true
 61
              *
 62
                          if the robot can move in the specified direction
                          relative to its current orientation. Otherwise,
 63
 64
              *
                          it returns false. You must replace the parameter
                          'direction' with one of the following arguments:
 65
 66
                              'forward'
              *
                              'backward'
 67
                              'left'
 68
 69
                              'right'
                          Note: you need to include the quotes since this function
 70
 71
                          only accepts a string as its argument.
 72
 73
                 Other programming techniques you can use:
 74
                      -You can use iteration, such as 'for loops' and 'while loops'.
 75
                      -You can define your own functions.
 76
                      -You can define your own variables.
 77
 78
              */
 79
             function robotInstructions()
 80
 81
                 // Your code here
 82
                 moveForward();
 83
                 moveForward();
                 moveForward();
 84
 85
                 rotateLeft();
 86
                 moveForward();
                 moveForward();
 87
                 moveForward();
 88
 89
                 rotateRight();
 90
                 moveForward();
 91
                 moveForward();
 92
                 moveForward();
 93
                 moveForward();
 94
                 moveForward();
 95
                 moveForward();
 96
                 rotateRight();
 97
                 moveForward();
 98
                 moveForward();
 99
                 moveForward();
                 moveForward();
100
101
                 moveForward();
102
                 rotateLeft();
103
                 moveForward();
                 rotateRight();
104
105
                 moveForward();
106
                 rotateLeft();
107
                 moveForward();
```

```
108
                 rotateRight();
109
                 moveForward();
110
             }
         </script>
111
112
     </head>
113
114
115
     <body onload="gameFrameworkInit()">
116
117
         <canvas id="myCanvas" width="400" height="500"></canvas>
118
119
     </body>
120
121
122
123
     </html>
124
```