

## iOS Challenge #1

Languages allowed: Swift (preferred) or Obj-C

OS versions: Latest

3rd party code: None-allowed.

Time allowed: Return test within one week. Should hopefully take no more than one or two evenings at most.

Quality is more important than speed, but the sooner we can look through your code the sooner we can move on to the next step. Let me know if you have any questions about what's being asked of the code:

Write a simple app that displays a 7x7 grid of cells (see the attached diagram). On a random cell, place a prize. Now, spawn two robots of different colors at opposite corners of the grid. These robots will search the grid (using different search strategies if you like) by moving to an adjacent (not diagonal) space from their current position roughly every half second. In addition, each robot leaves a trail through which the other robot cannot pass. If a robot cannot move from its current position, it may hold still or backtrack, in which case it erases the trail from the space it just occupied. When a robot reaches the prize, it gets a point, and the board resets. Run this simulation continuously, keeping track of the total score for each color.

You may elaborate on top of these requirements as much as you like, but to make it interesting each robot must run in a separate thread.

