Problem Wk.13.3.4: Robot on a grid

We want to write a program that uses search to plan paths for a robot on an infinite two-dimensional grid.

- The states will each be a pair of integers \((i, j)\), designating a square on the grid. Use tuples to represent the pairs.
- On each step, the robot can do the following actions: 'up' (increment \(j\)), 'down' (decrement \(j\)), 'right' (increment \(i\)), or 'left' (decrement \(i\)).

In the space below enter a state machine definition of this domain. The state machine should have `legalInputs` attribute, a `getNextValues` method and a `done` method that will terminate the search at the state \((3, 4)\). The initialization of the machine takes the start state as an argument.

```python
class RobotMoves(sm.SM):
    legalInputs = ['left', 'right', 'down', 'up']
    def __init__(self, s):
        pass
    def getNextValues(self, state, inp):
        pass
    def done(self, state):
        pass
```
6.01SC Introduction to Electrical Engineering and Computer Science
Spring 2011

For information about citing these materials or our Terms of Use, visit: http://ocw.mit.edu/terms.