



Capstone Courseware, LLC

1 Washburn Place  
Brookline, MA 02446

877-227-2477  
capstonecourseware.com

## Rover 1

Write a program **Rover.java** that can parse a terse command string into instructions for moving a robotic rover, and calculate its eventual location. The rover starts facing north, and we'll think of this as a grid in which north is the positive Y axis, east the positive X axis, south negative Y, and west negative X; so the rover starts at position (0,0) and if it were to move one unit of distance it would be at position (0,1).

Each character of the string will be either "L", "R", to instruct the rover to turn 90 degrees to the left or right, or a digit from 1 to 9 to instruct the rover to move forward that many units.

Your program should be able to parse a string such as "4R2R1L2" and print out the results, which would be that the rover is now at position (4,3) and facing east.

Design and implement your program to break the logic into reusable functions that operate on a common state model: you'll want at least a **turnLeft**, a **turnRight**, a **move**, and a **getStatus**. Then the main command-handling logic can be implemented in your **main** method.