Robot Control

We need a control system for the robots that inhabit our 100 by 100 grid world. The coordinates of our world are 0 based and the world wraps so grid coordinates 0 and 99 are adjacent. The origin is bottom left.

Initial Location

Each robot starts with a simple compass heading N, S, E, W and a grid coordinate, X, Y.

The Commands

The robot is controlled with a set of simple commands.

M - Move Forward
L - Rotate 90º Left
R - Rotate 90º Right

Each command may be followed by a number from 1-100. Which indicates the number of times to perform the action. Absence of a number is equivalent to 1

The Input

A single file is used for input. The first line of the file is the initial position, the second is the sequence of commands. Additional lines are ignored.

The Output

The controls system should print the final position of the robot to std out.

Example

N 0 0
M1RM4L3M2

Start the robot at X 0, Y 0 facing North and should print a final position of S 4 99

Submission

The Code

Write in a language relevant to the position and your skill set. If you're not sure, Typescript, Python, Swift or Go are all good choices.

Create tests as you see fit. Focus on clean, idiomatic code.

The Interview

We'll use this code at your next interview. We'll talk though your approach. We'll make some changes and we'll work together to add a new feature or two.

Tips

Write what you know. Don't try and be fancy. Write as you would naturally. We'll be working together on the code so be comfortable with what you create.

Questions

If you have any questions just shoot us an email and we'll get back to you as quickly as we can. It's better to ask question than sit and wonder what to do.

Send it in

Once you have completed your ball controller and you are ready to submit, zip up the project and email it to us.

By submitting you are certifying that the work is wholly your own.