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Robot Bounded In Circle - LeetCode

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Description

Solution

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JavaAutocomplete

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1041. Robot Bounded In Circle

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On an infinite plane, a robot initially stands at  $(0, 0)$  and faces north. The robot can receive one of three instructions:

- "G" : go straight 1 unit;
- "L" : turn 90 degrees to the left;
- "R" : turn 90 degrees to the right.

The robot performs the `instructions` given in order, and repeats them forever.

Return `true` if and only if there exists a circle in the plane such that the robot never leaves the circle.

Example 1:

Input: `instructions = "GGLLGG"`

Output: `true`

Explanation: The robot moves from  $(0,0)$  to  $(0,2)$ , turns 180 degrees, and then returns to  $(0,0)$ .  
When repeating these instructions, the robot remains in the circle of radius 2 centered at the origin.

Example 2:

Input: `instructions = "GG"`

Output: `false`

Explanation: The robot moves north indefinitely.

Example 3:

Input: `instructions = "GL"`

Output: `true`

Explanation: The robot moves from  $(0, 0) \rightarrow (0, 1) \rightarrow (-1, 1) \rightarrow (-1, 0) \rightarrow (0, 0) \rightarrow \dots$

Constraints:

- `1 <= instructions.length <= 100`
- `instructions[i]` is 'G', 'L' or 'R'.

Accepted 164,667

Submissions 297,045

Seen this question in a real interview before?

YesNo

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```
class Solution {
    public boolean isRobotBounded(String instructions) {
    }
}
```

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Problems

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