**1041. Robot Bounded In Circle**

Medium

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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) -> (0, 1) -> (-1, 1) -> (-1, 0) -> (0, 0) -> ...

**Constraints:**

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