

โจทย์ข้อที่ 1

### JS Track the Robot (Part 2)

...

This robot roams around a 2D grid. It starts at (0, 0) facing North. After each time it moves, the robot rotates 90 degrees clockwise. Given the amount the robot has moved each time, you have to calculate the robot's final position. To illustrate, if the robot is given the movements 20, 30, 10, 40 then it will move: 20 ste ...

conditions logic loops

Very Hard

introductions

## Track the Robot (Part 2)

Published by Jon Ingram in JavaScript

bookmark conditions logic loops

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To illustrate, if the robot is given the movements 20, 30, 10, 40 then it will move:

- 20 steps North, now at (0, 20)
- 30 steps East, now at (30, 20)
- 10 steps South, now at (30, 10)
- 40 steps West, now at (-10, 10)

...and will end up at coordinates (-10, 10).

### Examples

```
trackRobot(20, 30, 10, 40) → [-10, 10]
trackRobot() → [0, 0]
// No movement means the robot stays at (0, 0).
trackRobot(-10, 20, 10) → [20, -20]
// The amount to move can be negative.
```

### Notes

Each movement is an integer (whole number).

SUGGEST EDIT

## Code

```
assign > JS TrackTheRobot.js > ...
1  ✓ function trackRobot(...steps) {
2      let result = [0,0] ;
3      let Direction = 1;
4  ✓  for(x=0;x<steps.length;x++){
5  ✓      if(Direction===1){
6          result[1]+=steps[x];
7  ✓      }else if(Direction===2){
8          result[0]+=steps[x];
9  ✓      }else if(Direction===3){
10         result[1]-=steps[x];
11  ✓     }else if(Direction===4){
12         result[0]-=steps[x];
13         Direction = 0;
14     }
15
16     Direction++;
17 }
18 return result;
19 }
20
21 console.log(trackRobot(20, 30, 10, 40)) //[-10, 10]
22 console.log(trackRobot(10, -10, -10, 10)) //[-20, 20]
23 console.log(trackRobot()) //[0, 0]
24 console.log(trackRobot(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)) //[6, 5]
25 console.log(trackRobot(1, 0, 2, 0, 3, 0, 4, 0, 5, 0)) //[0, 3]
26 console.log(trackRobot(0, 1, 0, 2, 0, 3, 0, 4, 0, 5)) //[3, 0]
27
```

## Run

```
PS C:\Users\Admin\Desktop\JSpilot\JavaScript\assign> node .\TrackTheRobot.js
[ -10, 10 ]
[ -20, 20 ]
[ 0, 0 ]
[ 6, 5 ]
[ 0, 3 ]
[ 3, 0 ]
PS C:\Users\Admin\Desktop\JSpilot\JavaScript\assign>
```