

## Lesson 3: Worksheet 3.4 – Mini maze

In this activity, you need to write a program that will allow your Edison robot to successfully navigate through a maze.

### Your turn:

Write a program so that your Edison robot will drive through the mini maze on activity sheet 3.2 when you hit the play (triangle) button.

To successfully complete the maze, you must:

- have Edison start from behind the 'start' line,
- have Edison stop after crossing the 'finish' line, and
- keep Edison inside the border lines of the maze.

Use the robot programming knowledge that you've gained so far to write a program which uses multiple functions to allow Edison to make it through the maze's turns.

Hints:

Ed.Drive()	Ed.SPIN_RIGHT	Ed.FORWARD	Ed.SPIN_LEFT
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1. Describe the sequence of moves your robot did to complete the maze.

2. What did you find difficult about writing this program?

### Challenge I: Race!

Who can get through the maze the fastest, without cheating?

Remember: your robot must start from behind the start line, stop after the finish line and must not drive over any border lines to win.

Name \_\_\_\_\_

3. Who did you race? Who won the race?

Competitor: \_\_\_\_\_

Winner: \_\_\_\_\_

4. What was the winning robot's time through the maze?

\_\_\_\_\_

### **Challenge 2: Design your own maze**

Design your own, more challenging maze with a few more turns for Edison to navigate. Write a program for Edison to complete the maze successfully. Or, exchange mazes with a partner and write a program to complete their maze successfully.

Remember: your robot must start from behind the start line, stop after the finish line and must not drive over any border lines to win.

5. Draw a small version of the maze you completed in the box.

