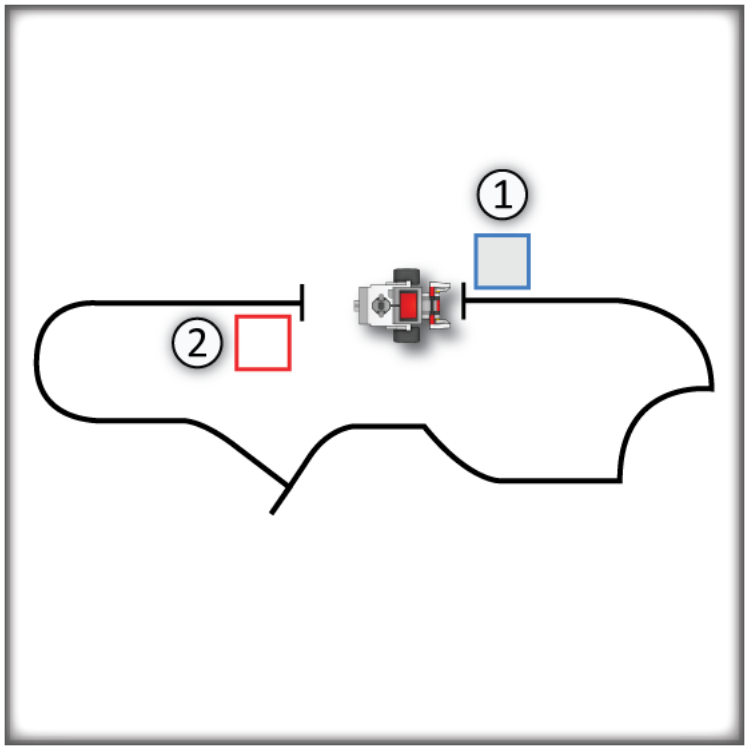
Introduction to Programming LEGO® MINDSTORM® EV3

CHAPTER 10: Line Track Challenge

In this challenge, you will program your EV3 robot to grab a cargo crate from the pickup spot, follow the line track and drop the crate off in the drop-off zone.

Rules and Procedures:



- Build the course shown above using black electrical tape on a light surface.
- The robot must pick up the box using its arm, then follow the line to the drop-off point, and release the box there.
- Program your robot to deliver the box in the shortest time possible!

Hints:

- You can use the Loop Mode setting to adjust when a Line Track behavior ends. The program will then run whatever comes next, even another Line Track!
- Use multiple line tracks with different “sharpness” one after another to handle parts of the board.
- Adjust the “sharpness” of the robot’s motions using the Steering slider on the Move Steering Block.
- You may find it advantageous to track the right side of the line in some places. Which way should the robot go when it sees Black to get to the right edge of the line? Which way should it go to get back after it drives off?