

The Grand Maze

The final test. First a **walled maze** with a dead end — look around and solve it. At the doorway the walls stop and a **black line** begins. Switch strategy, follow it to the green tile, and celebrate.

BEFORE YOU START

Your toolkit

Everything on your car. The highlighted parts are the ones this mission needs.

SPIKE Hub

the brain · has a built-in gyro

USED THIS MISSION

2 Medium motors

left + right wheels · ports A, E

USED THIS MISSION

Large motor

steers the back · port D

USED THIS MISSION

Large motor

the

turret

: swings the distance sensor · port C

USED THIS MISSION

Distance sensor

port B · looks

right, left and ahead

on the turret

USED THIS MISSION

Color sensor

underneath, pointing down · port F

USED THIS MISSION

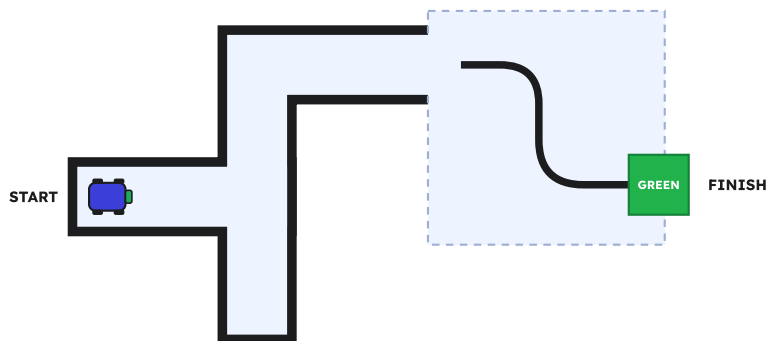
Hub gyro

level-up: exact 90° turns

OPTIONAL LEVEL-UP

Your car: the Delivery Cart with a large-motor turret carrying the distance sensor at the front, and a color sensor underneath. How to build it →

THE MAZE



YOUR MISSION

What the car must do

- **Phase 1 — walls:** use your stop-and-look loop (with the dead end) until the belly sensor sees the **black start line**.
- **Phase 2 — line:** switch to line following until the color sensor sees **green**.

- Play a sound on the tile. One program, one button, no touching.

Everything combined

Switching modes

Debugging

Playbook cards for this mission: The right-hand rule · Dead ends: everything blocked · Follow the line · Green means go · Explore, then sprint

BUILD IT

Maze size

Along the route	Whole maze
2.5 → 2.2 → 2.5 → 0.9 → 1.3 → 2 → 1.5 lane widths	about 10.6 × 6.2 lane widths

With a 30 cm lane width the maze is about 318 × 186 cm. Lane spacing is one lane width plus a wall.

DONE WHEN

Success looks like

- The car escapes the walled part, including the dead end.
- It switches to line following at the doorway.
- It stops on green and plays its sound.

Keep going: All missions → [index.pdf](#) | Hints → [mission-7-hints.pdf](#)
The same content is in the matching .html files.