

COLOR CODES

SPEED



SNAIL DOSE



SLOW



CRUISE



FAST



TURBO



NITRO BOOST

DIRECTION



GO LEFT



GO STRAIGHT



GO RIGHT



LINE JUMP LEFT



LINE JUMP STRAIGHT



LINE JUMP RIGHT



U TURN



U TURN (LINE END)

TIMERS



TIMER ON (30 SEC. TO STOP)



TIMER OFF



PAUSE (3 SEC.)

COOL MOVES



TORNADO



ZIGZAG



SPIN

WIN/EXITS



WIN/EXIT (PLAY AGAIN)



WIN/EXIT (GAME OVER)

COUNTERS

FIVE DOWN TO STOP



ENABLE X-ING COUNTER



ENABLE TURN COUNTER



ENABLE PATH COLOR COUNTER



ENABLE POINT COUNTER



POINT +1



POINT -1



BACKWALK

DEFINITIONS

SPEED

Speed codes change your Ozobot's velocity from Snail Dose (slowest) to Nitro Boost (fastest).

Snail dose (slowest) → slow cruise (default) → fast turbo → nitro boost (fastest)

- **Snail Dose:** A three-second dose of super slow speed.
- **Slow:** A slow speed command effective until the bot reads a new speed code or is turned off.
- **Cruise:** The default speed command.
- **Fast:** A high speed command effective until the bot reads a new speed code or is turned off.
- **Turbo:** An extra high speed command effective until the bot reads a new speed code or is turned off.
- **Nitro Boost:** A three-second dose of Ozobot's highest speed.

COOL MOVES

Cool Move codes tell your Ozobot to bust a move!

- **Tornado:** A command to spin around twice at increasing speed, then continue following the line in the same direction.
- **Zigzag:** A command to sway right-left-right-left while moving forward, then continue moving straight.
- **Spin:** A command to spin around twice at a consistent speed, then continue following the line in the same direction.
- **Backwalk:** A command to quickly turn 180 degrees, wiggle backwards for one second, then turn 180 degrees again and continue following the line in the same direction.

COUNTERS

Counter codes tell your Ozobot to count five intersections, turns, or line color changes.

- **Enable X-ing Counter:** A command to make your Ozobot stop following lines after it crosses five intersections ('T' or '+' intersections). After the fifth intersection, Ozobot executes a "done" maneuver, stops following the line, and blinks red.
- **Enable Turn Counter:** A similar command to the Enable X-ing Counter, except that Ozobot only counts intersections where it makes a turn. It will not count intersections where it continues straight. Ozobot can randomly choose to go straight at an intersection, or be commanded to go straight with a "Go Straight" code.
- **Enable Path Color Counter:** A command to make your Ozobot stop following lines after it reads five color changes in the line. If the line Ozobot is following transitions from red to green, it counts as one color change. Transitions to and from black lines are not counted, and color segments less than two centimeters in length are not counted.
- **Enable Point Counter:** A command that tells your Ozobot to count point codes down from five. Each time Ozobot reads a "Point -1" code it counts down. After the fifth "Point -1" code Ozobot will make a "done" maneuver, stop following lines, and blink red. You can add more to the total count (not to exceed five) with "Point +1" codes. You can reset Ozobot by turning it off, then on.

TIMERS

Timer codes tell your Ozobot to pause or count seconds.

- **Timer On (30 sec. to stop):** A command to make your Ozobot countdown from 30 seconds, but continue to move and read codes while counting down. Ozobot will flash its light(s) at a rate of one flash per second, flash rapidly to signify time is up, then shut off.
- **Timer Off:** A command to stop counting down seconds and return to default behavior.
- **Pause (3 sec.):** A command to stop moving for three seconds, then continue with default behavior.

DIRECTION

Direction codes tell your Ozobot what to do at an intersection.

Ozobot's default intersection behavior is random. If a given turn (i.e. Go Left) is not possible, Ozobot defaults back to random behavior.

- **Go Left:** A command to turn left at the next intersection.
- **Go Straight:** A command to continue straight at the next intersection.
- **Go Right:** A command to turn right at the next intersection.
- **Line Jump Left:** A command to immediately turn 90 degrees to the left, move forward to a new line, then make a random turn to follow along the new line.
- **Line Jump Straight:** A mid-line command to continue straight after the line ends. The code will not work if Ozobot encounters an intersection before the line ends.
- **Line Jump Right:** A command to immediately turn 90 degrees to the right, move forward to a new line, then make a random turn to follow along the new line.
- **U Turn:** A mid-line command to turn around 180 degrees and follow the same line in the opposite direction.
- **U Turn (Line End):** A line-end command to turn around 180 degrees and follow the line in the opposite direction.

WIN/EXITS

Win/Exit codes tell your Ozobot to celebrate its success, then either start over or stop.

- **Win/Exit (Play Again):** A command to perform a "success" animation, then continue to follow the line.
- **Win/Exit (Game Over):** A command to perform a "success" animation, then stop following the line.