

WORKSHOP 3

A 5 MINUTE INTRODUCTION

Materials

- Ozobots (1 per group of about 3 participants, make sure that they are calibrated on paper and charged)
- Markers in colors black, red, light blue and light green (we recommend you use either Sharpie's wide chisel tip or Crayola markers), one set per group
- One printout of either of the two tracks
- Printout of OzoCodes reference chart (www.ozobot.com/gamezone/color-language)

Time

5-10 min

Ozobot skill level

Beginner

Note to instructor:

Please take a look at the teacher's guide before starting this introduction. In particular, please review the sections on how to calibrate Ozobot (p.5) and how to use codes (p.7)

Directions

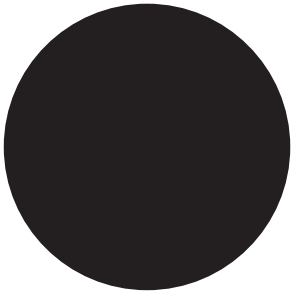
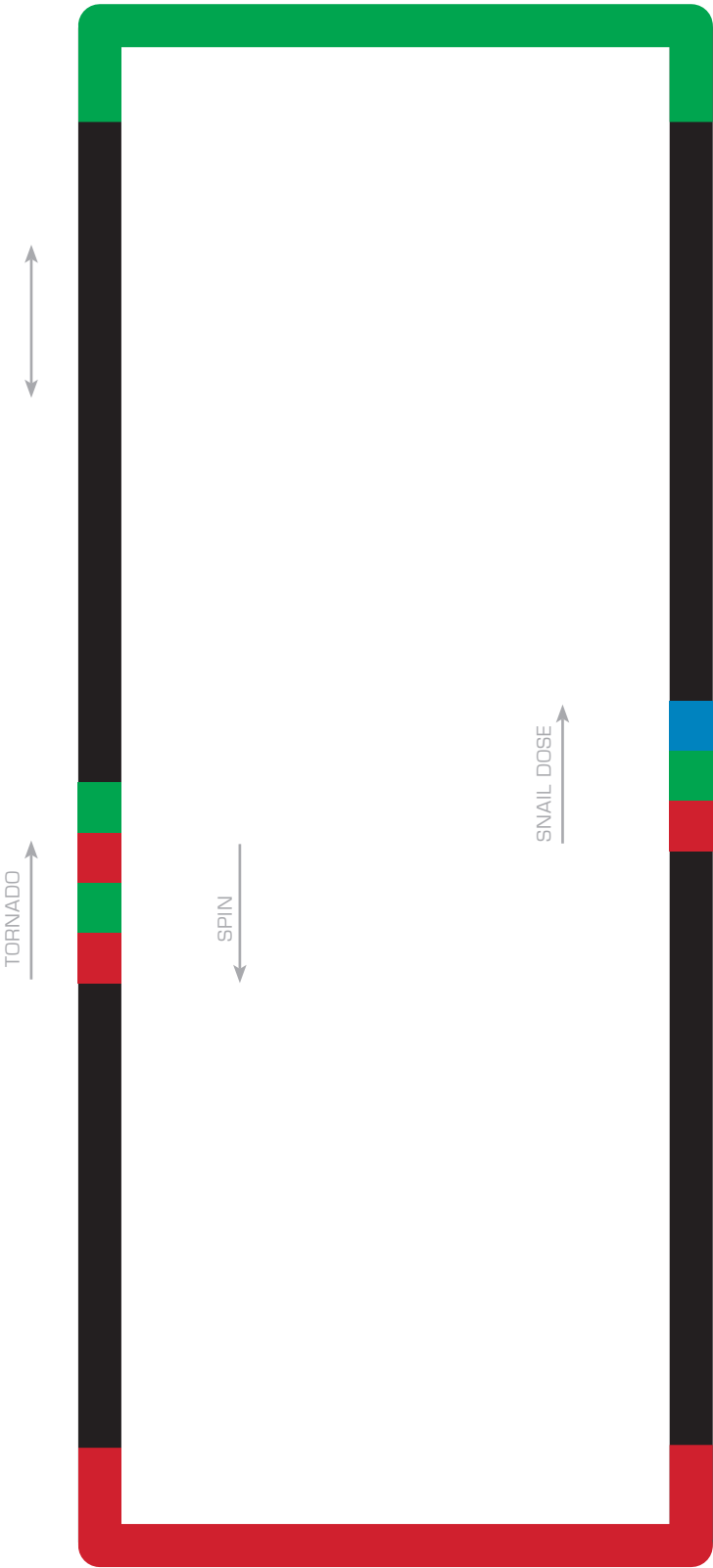
There are two different tracks that can be used for this quick introduction. **Print out either one and use the black dot to calibrate Ozobot as follows:**

1. Press and hold the ON/OFF button until Ozobot blinks white (about 2 sec).
2. Place Ozobot on the black dot on the track printout.
3. When Ozobot blinks green, it means that it has successfully calibrated. Start over if Ozobot blinks red.

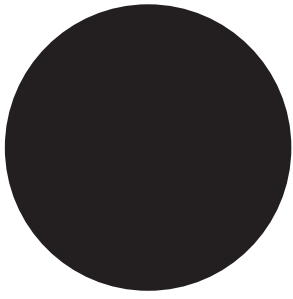
Place Ozobot on the track at any location and in any direction. Ozobot will continue following the track and executing the codes which will give you time to explain the following points:

- Ozobot can see lines with the help of 5 optical sensors and can follow the lines.
- The middle sensor is a color sensor which allows Ozobot to detect the color of the line and have the LED shine in that color.
- When a sequence of short color segments is detected, Ozobot will evaluate if this is one of the pre-programmed codes and execute the code if appropriate. You can point to the OzoCodes reference chart for more code examples.
- Some codes are symmetric (like the fast or slow code), but some are not (like the tornado/spin code). If the code is not symmetric, i.e. two-directional, then it matters if Ozobot reads it from left to right or the other way around. If you are using the first track, pick Ozobot up and place Ozobot back on the track in the opposite direction to demonstrate how non-symmetric codes work. On the second track, Ozobot turns automatically so there is nothing for you to do.

Lastly, **encourage the participants to draw their own lines and codes on the printout.** There is a lot of space below the first track and in the center of the second track. The second track also has an isolated segment with a u-turn code that could be connected with the existing path. Make sure that the participants know how to place the codes properly, i.e. not too close to intersections and on a segment of the path that is straight and black.



USE TO CALIBRATE



USE TO CALIBRATE

TORNADO →

← SPIN

FAST ↑↓

SLOW ↑↓



U-TURN

