iRobot:

BEFORE WE BEGIN:

- Thank you for being a coach!

- We want to know who is here! Please introduce yourself in the chat: Name and School.

- Please mute your microphone to reduce background noise.

QUESTIONS AFTER TONIGHT?

Continuing in 2026...

Discord

WESO Discord Server

- **Every WESO event will have its own channel**
- **Join the WESO server to submit your questions in the event chat**
- **Event supervisors or WESO board members will monitor the discussion and answer questions**
- **Event coaches can use the chat to exchange coaching ideas**
- **Go to** wesoscience.org/events/ **for details on how to join the WESO server and guidelines for its use**

iROBOT

WESO 2026

EVENT SUPERVISORS:
Beth Nazario
Francis Esmonde-White

Jan. 22, 2026

EVENT GOALS

- Fun! Seriously!
- Computational Thinking Principles:
  - Algorithms
  - Logical Reasoning
  - Pattern Recognition
  - Problem Solving
- Additional Concepts:
  - Basics of Robotics
  - Robotic automation
  - Time Management
- Teamwork!

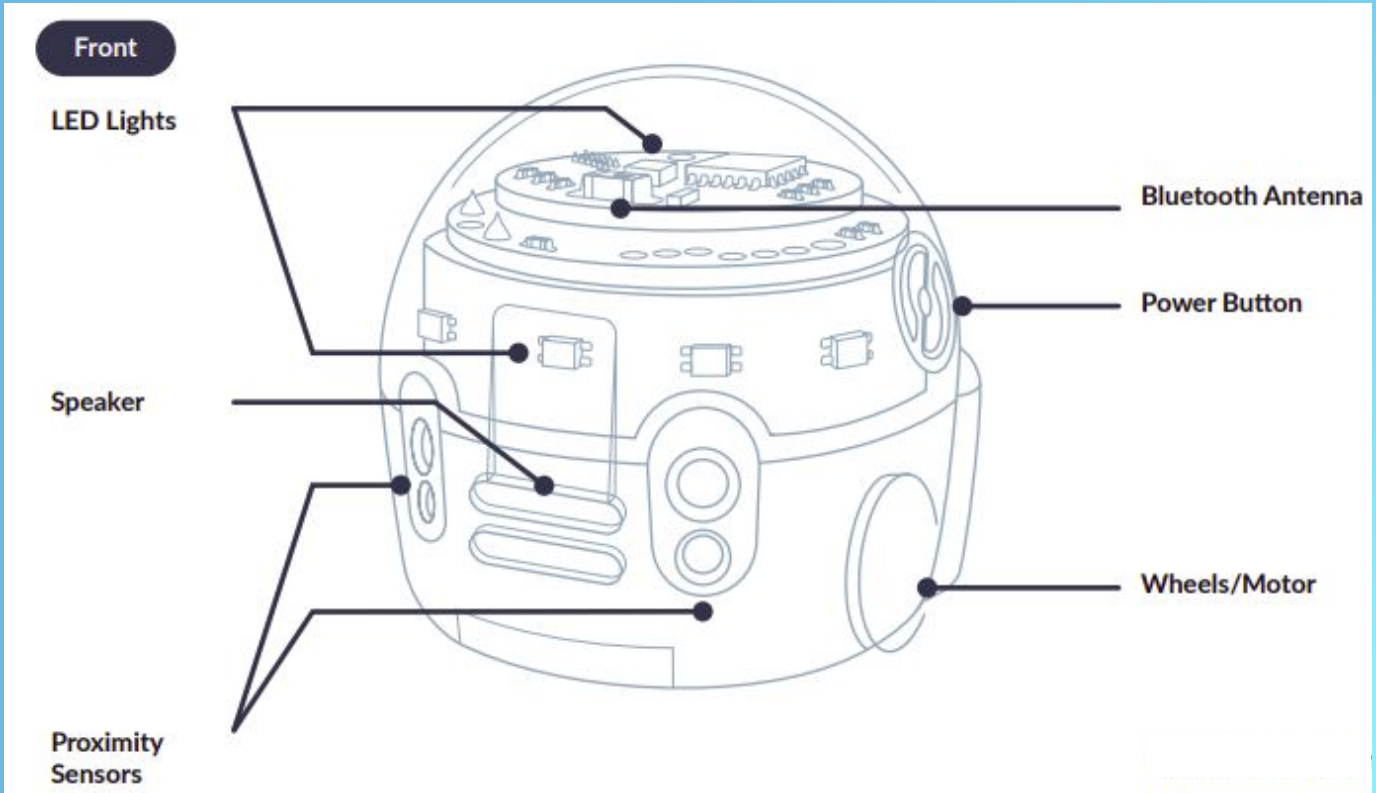
EVENT INFO

- Grades: 2,3
- Team Size: 1-2 participants per grade
- Duration: 45 mins (includes instructions)
- The detailed event description can be found at: https://wesoscience.org/events/

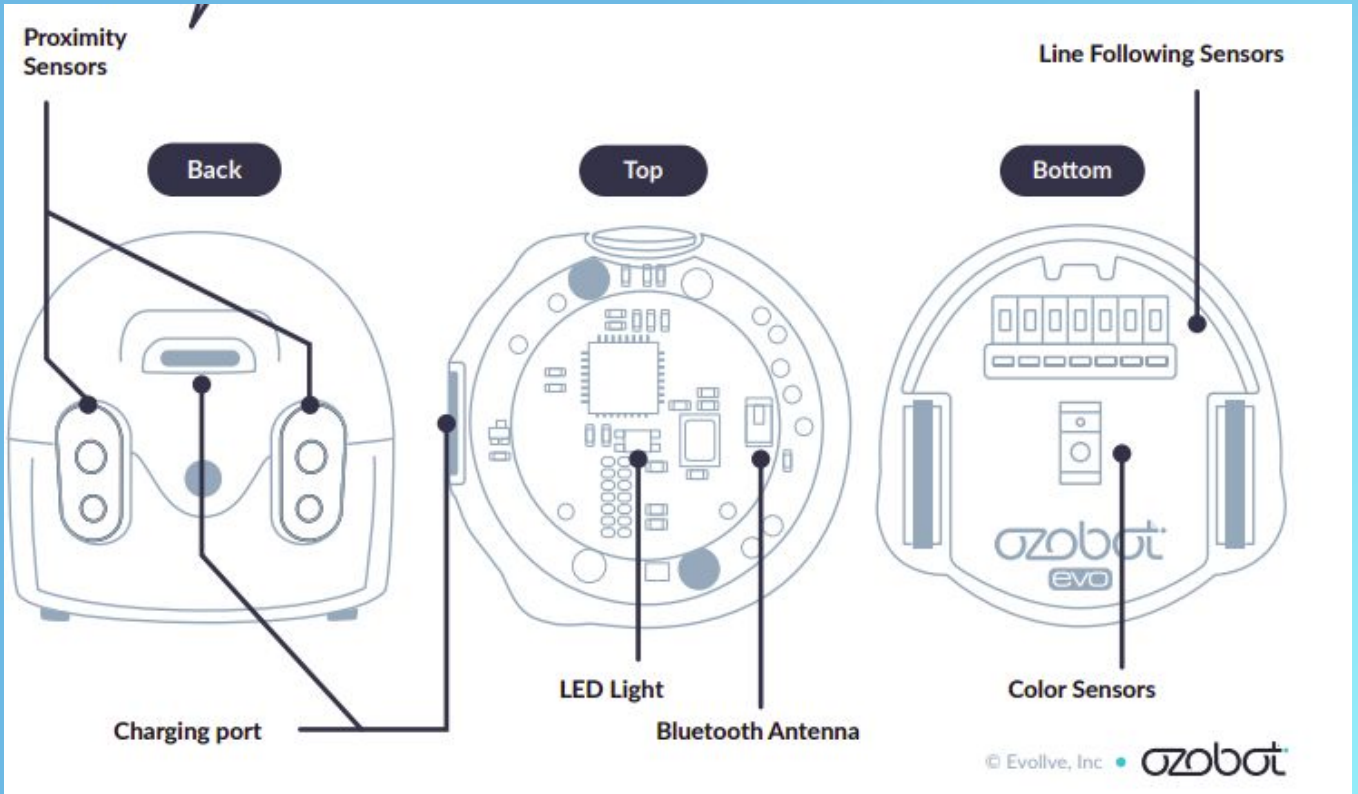
MEETING FORMAT

- What is an Ozobot?
- Coding with Color Codes
- Materials Requirements and Distribution
- The event/test sections!
- Questions?

OZOBOT


Front
LED Lights
Bluetooth Antenna
Power Button
Speaker
Wheels/Motor
Proximity Sensors

OZOBOT


Proximity Sensors
Line Following Sensors
Back
Top
Bottom
Charging port
LED Light
Bluetooth Antenna
Color Sensors
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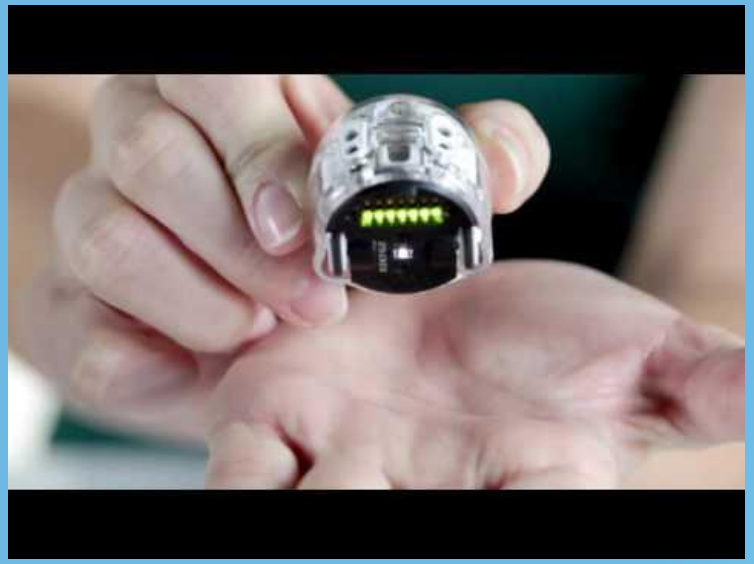
ozobot

OZOBOT INTRO VIDEOS

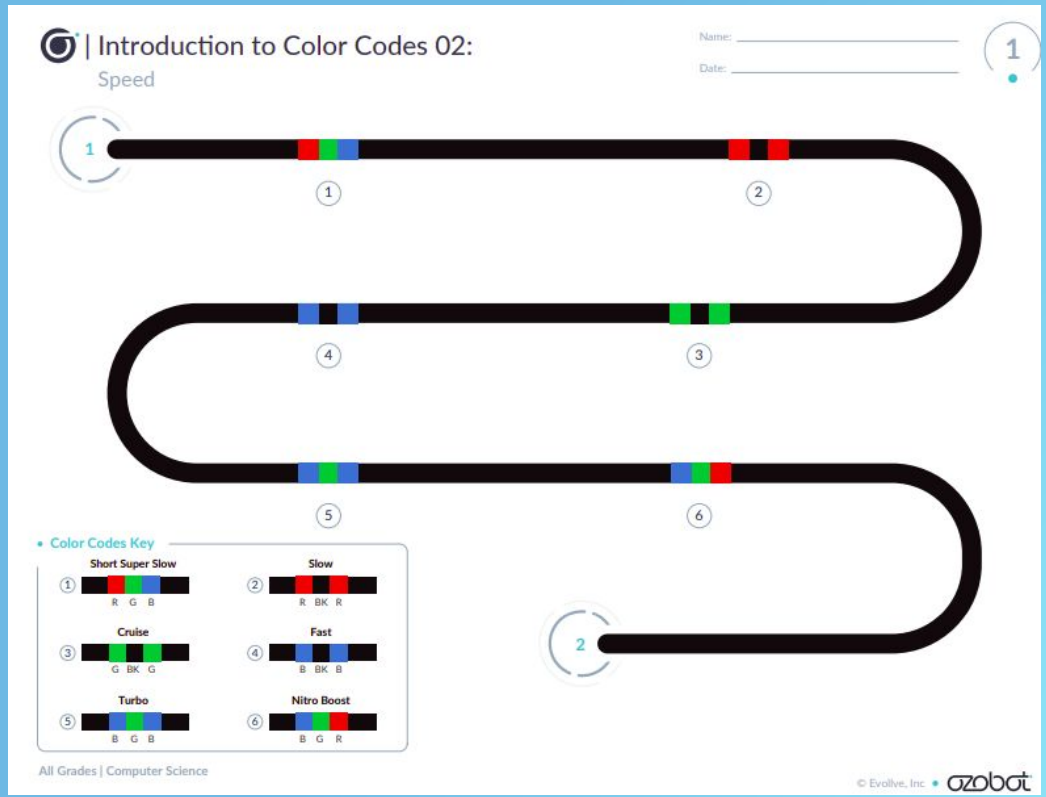


Some additional links - (also available in pacing guide)

- Evo Intro
- Sensors
- LED lights

- Pacing Guide (has links to all lesson plans - follow 1 through 10 for this event)
- Using color codes, not Blockly for the competition!

OZOBOT


| Introduction to Color Codes 02:
Speed
Name:
Date:
1
1
2
3
4
5
6
2
Color Codes Key
Short Super Slow
R G B
Slow
R BK R
Cruise
G BK G
Fast
B BK B
Turbo
B G B
Nitro Boost
B G R
All Grades | Computer Science
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OZOBOT ColorCodes Guide

- 3 page tips & tricks guide to drawing ColorCodes: https://files.ozobot.com/stem-education/ozobot-tips.pdf

- They don't need to memorize the color code sequences- required color sequences will be given as a reference. They should understand what each sequence does.

- Kids love to use nitro boost & tornado. They will also need to use other codes.

- Full list of ColorCodes (2023): https://static.ozobot.com/assets/5c9cf3b3-ozobot-color-chart-and-guide-2023.pdf

MATERIALS TO BE BROUGHT TO THE COMPETITION

- Participants are not allowed to bring anything along with them; all materials needed for the event will be provided.

- Participants can only use the color coded markers and stickers provided to them during the competition.

EVENT MATERIALS DISTRIBUTED BY WESO

- You will get a new package of stickers and markers this year. If your school did not participate in iRobot in 2022-2025, you will get a full Ozobot kit this year. The Ozobot kit comes with a basic manual and markers for color coding.

- Each school must use their Ozobot for all participating grades.

- The participants should learn using marker color codes and sticker sheets for programming the Ozobot. Marker color codes are strongly preferred. Sticker sheets with color codes will be provided. Additional sticker sheets can be bought from Amazon.

EVENT MATERIALS DISTRIBUTED BY WESO

Does your Ozobot need a tune up?

- A representative from the iRobot event supervisors will be at Pittsfield Library, Saturday 1/31 from 10:30 a.m. to noon. If schools who already have Ozobots would like to bring their bots back for updating, calibration and testing they are free to do so during that time.

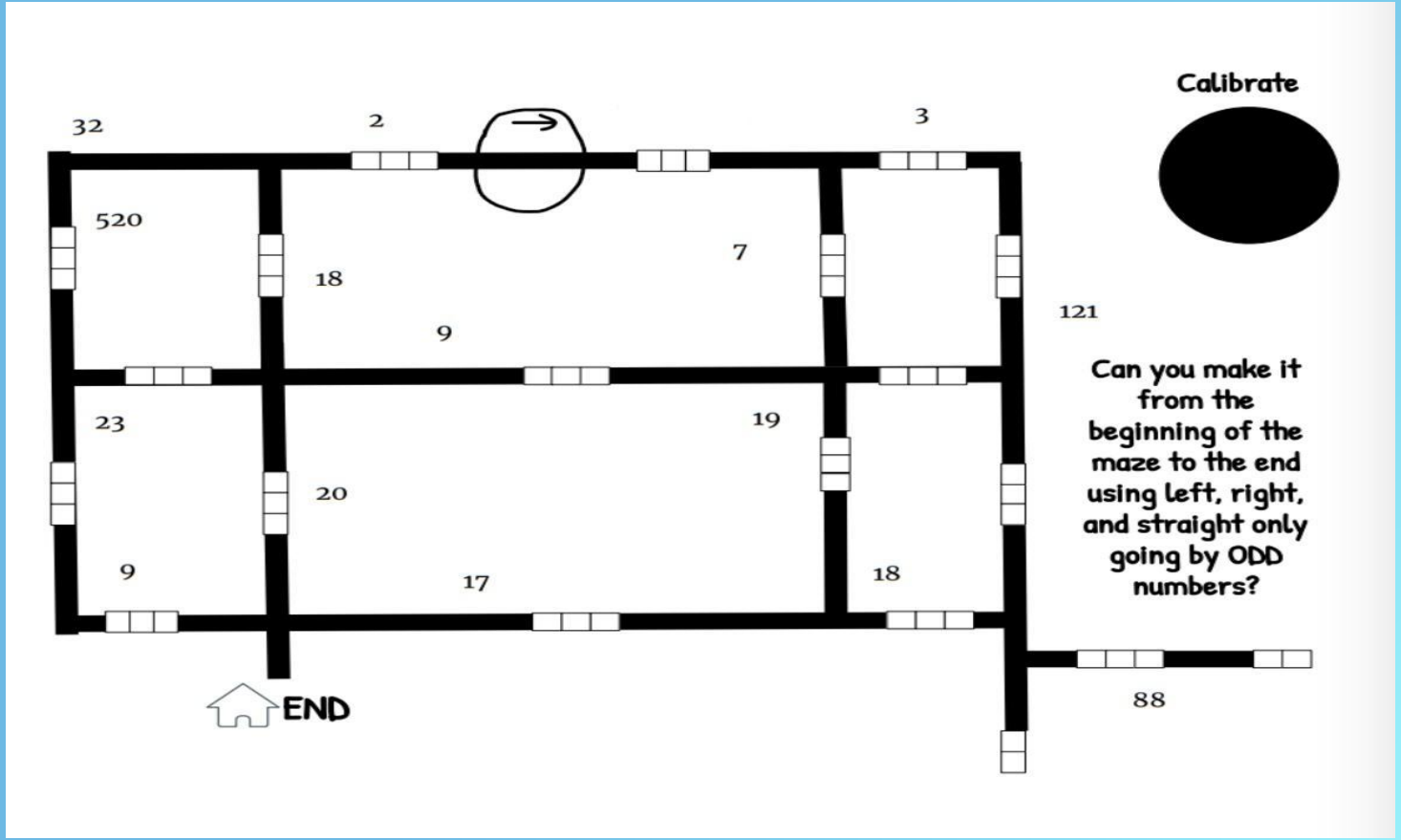
EVENT FORMAT - Section A

- Written test - Multiple choice and matching format
- This section tests basic knowledge of Ozobot programming languages, Ozobot sensors, actuators, inputs and outputs, parts, automation, etc.
- Scoring: 10 points for correct answers

EVENT FORMAT - Section B

- Practical Computing Written Portion - each team will be asked to solve a problem using Ozobot color codes. OZOBOT IS NOT USED FOR THIS. Teams are scored on correct color codes only!
- Path Algorithms
  - To test the participant's understanding of how to solve a task using programmed instructions used to guide a robot to complete a defined objective.
- A set of markers will be provided so the team can identify or mark necessary color code sequences for a given action. If a marker code is incorrect it can be colored again using a blank sticker. Teams can use available color coded stickers as the last option, but using markers will be penalized.
- Scoring: 20 points for correct answers.
- Use of color code stickers will incur a 5-point penalty.

EVENT FORMAT - Section B



EVENT FORMAT - Section C

- Practical Computing Challenge Portion– OZOBOT USED HERE
  - To test the participant's ability to identify the correct sequence of color codes to program the robot to complete an assigned objective. This will be accomplished using the pre-printed color coded sheets.
- Each team will have access to exactly one Ozobot along with a set of specific objectives for their robot to complete. We will evaluate the ability of the robot to meet the stated objectives.
- Each team will have access to their own floor space
- Scoring: 20 points
  - Points may be awarded for choosing the correct color coded sheets, distance to the target, correct path to the target, etc.

EVENT FORMAT - Section C

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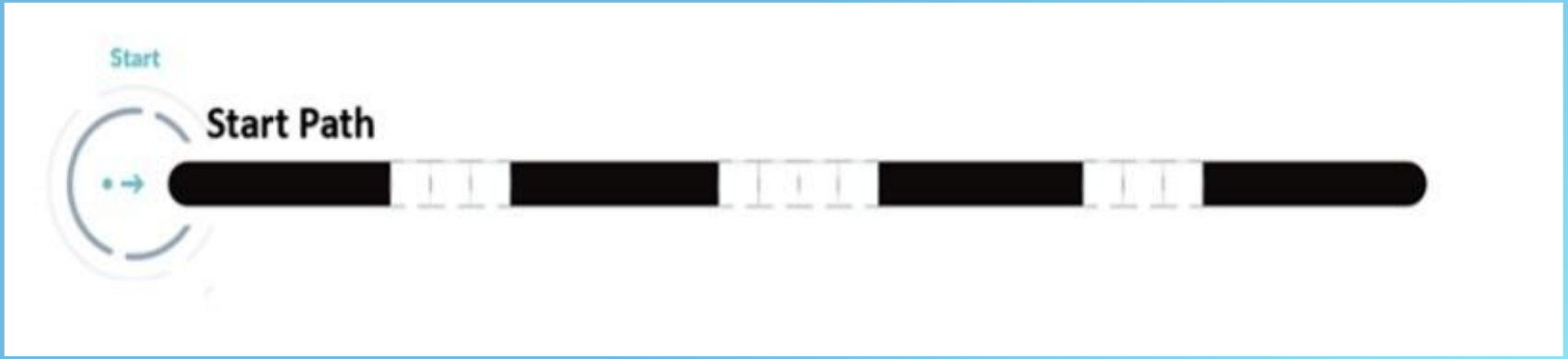

Need to figure out: Speed/Timing/Jump

What speed? What order? How long?

Several tries allowed (Best score of 3 “official” tries)

TIE BREAKERS

- First Tie Breaker: Use of markers over sticker codes and fastest completion of code sheets in Part B.
- Second Tie Breaker: Neatness of code sheets with least overwrites and efficiency of the code in Part B.

TIPS FOR COACHING

- Download the Ozobot Evo app for iPhone/Android for updating firmware.
- Encourage using markers for color coding over stickers.
- Look for lesson plans online, searching "OzoBot computational thinking lessons" like these.
- Make sure your students can work as a team and that they have a plan before they start.
  - Practice teamwork in timed situations (build card houses, puzzles, "Minute to Win-it")

Active kids?! Try the "Human Ozobot"--color codes on the floor with construction paper completing a task. Run it til they're tired:).

Questions after tonight?

- If you have any questions, please use the WESO Discord server and iRobot channel.

- Additional materials, including this presentation and Q & A, will be posted on the WESO website.

GOOD LUCK TEAMS!!