



**Includes 24  
Ozobot Evo  
robots!**

# Ozobot Evo Educator Kit

**Recommended Age: 8 and up**



Learn and play with this small programmable robot. Evo makes learning to code fun and interactive, and supports different levels of experience as you use the markers to draw color patterns to tell Evo what to do, or download the app and use block-based coding to program movement, lights, and sound.

System requirements: smart device with Ozobot app.



Steam Kits were supported in whole or in part by the U.S. Institute of Museum and Library Services under the provisions of the Library Services and Technology Act, administered in California by the State Librarian.

# Contents List

- 24 Ozobot Evo Robots
- 24 USB charging cables
- 3 Ozobot USB chargers with cords
- 24 packs of 4-color markers
- Approximately 3 packs of marshmallows foam shapes
- Red folder with getting started guide





# Getting Started Guide

## Ozobot Evo—Paper/Draw Coding

Programming Ozobot is simple - you can do this by simply drawing lines and using colors. Kids use their creativity and artistic expression, while developing logical reasoning and in turn, actually learning high level coding concepts.

**HOW DO COLOR CODES WORK?** When Ozobot detects unique sequences on colors, it is pre-programmed to perform different actions or change behavior. It's as simple as that.

### DRAWING BASICS

Ozobot won't move until at least one of the five bottom sensors sees a color. For instance Ozobot will just patiently sit, wait and blink when placed on a white sheet of paper. Place Ozobot on a dark area, like a wood desk or a black kitchen counter and Ozobot will immediately begin exploring and searching for the next adventure.

**Tip:** Ozobot is completely obsessed with finding a path and won't hesitate to jump off your dark desk.

#### Drawing a perfect path

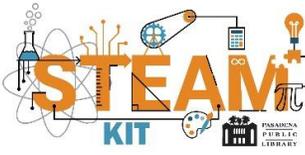
- Ozobot thrives on wide lines (paths) of about a quarter of an inch thick (5mm). You can use small felt tip pens or markers and thicken your paths with multiple strokes, but the fun really starts with wide markers as one fast stroke will create the perfect path.
- "Chisel Tip" or wide markers work the best, we suggest you use water based felt pens - inks are non-toxic and more stain resistant. Ozobot Markers are enclosed, and are perfect, but other markers will work:
  - Crayola Classic
  - Crayola Pastels
  - Sharpie Chisel tips (use light green and light blue)

#### Drawing intersections

- The most important thing about intersections is that unless told otherwise by a code, Ozobot will randomly decide which path to pick.
- Ozobot may have difficulty maneuvering intersections that are less than 90 degree turns.

#### Drawing color codes

- Color codes are color sequences made of two, three or four color dots in a row located directly on a path. Ozobot's sensors are designed to read floor signs about 150 times per second to detect red, green, blue, black and white areas and react accordingly.
- Draw color codes on straight sections of the line and keep distance from corners and intersections (about 3/4 of inch or 2 cm).



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See attached Drawing tips, Drawing Codes, Color Codes Chart and Definitions for more info.

Attached are some sample games and activities for Ozobot, downloaded and printed from <https://ozobot.com/play/print-games>. If you have a tablet with Internet access, you can also play Ozobot web games (at <https://ozobot.com/play/web-games>)

## OzoBlockly—App/Online Coding

OzoBlockly gives you the power to fully control your Ozobot's movement and behavior. Powered by Google's Blockly, OzoBlockly offers five modes from Novice with icon-based blocks to Master with support for many low-level functions and advanced programming concepts. It has something for everyone!

Download the Ozobot Evo App from the App Store or Google Play. Follow the instructions to create an account and load programs via Bluetooth.

Refer to the attached OzoBlockly Getting Started Guide for more info.

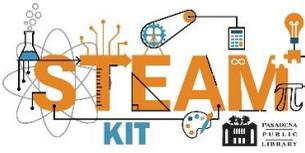
Visit <http://ozoblockly.com/editor> and find an online step-by-step tutorial for using the editor to program the Ozobot Evo: its Movement, Light Effects, Timing, and Loops (repeating behaviors).

## More Information

Cost of Ozobot Educator STEAM Kit - \$2,400.00

For a full list of Pasadena Public Library STEAM Kits  
<https://ww5.cityofpasadena.net/library/steam/>

When returning the kit, please check if all contents are in the box. If something is missing, please inform staff.



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# Information for staff

**Check-in instructions:** check the contents

- 24 Ozobot robots
- 3 circular chargers
- Red folder

Cost will incur if any robots or the circular Ozobot chargers are missing.  
The other materials can be replaced.

**Maintenance:**

1. Check for all parts following the Contents list.
2. Check if markers are working and replace if needed
3. Check if there are at least 12 color code sheets, if not, make more color copies

**Cost and replacements:**

- Evo Classroom Kit (18 bots) - \$1,800.00
- 6 individual Ozobot Evos - \$100.00 each

-update 12/4/18 by Jane Gov, Pasadena Public Library