# Ozobot Evo: Basics

**Hardware**: Anything physical or anything we can see and touch is a hardware.

**Sensor**: Device that responds to certain signals

Or

A device or part that detects and responds to certain changes in the environment.

A **sensor** is a device that measures a physical quantity and converts it into a 'signal' which can be read by an observer or by an instrument.

Ozobot Evo (Evo) has three types of sensors: Proximity sensor, Line-Following sensors, and Color sensors.
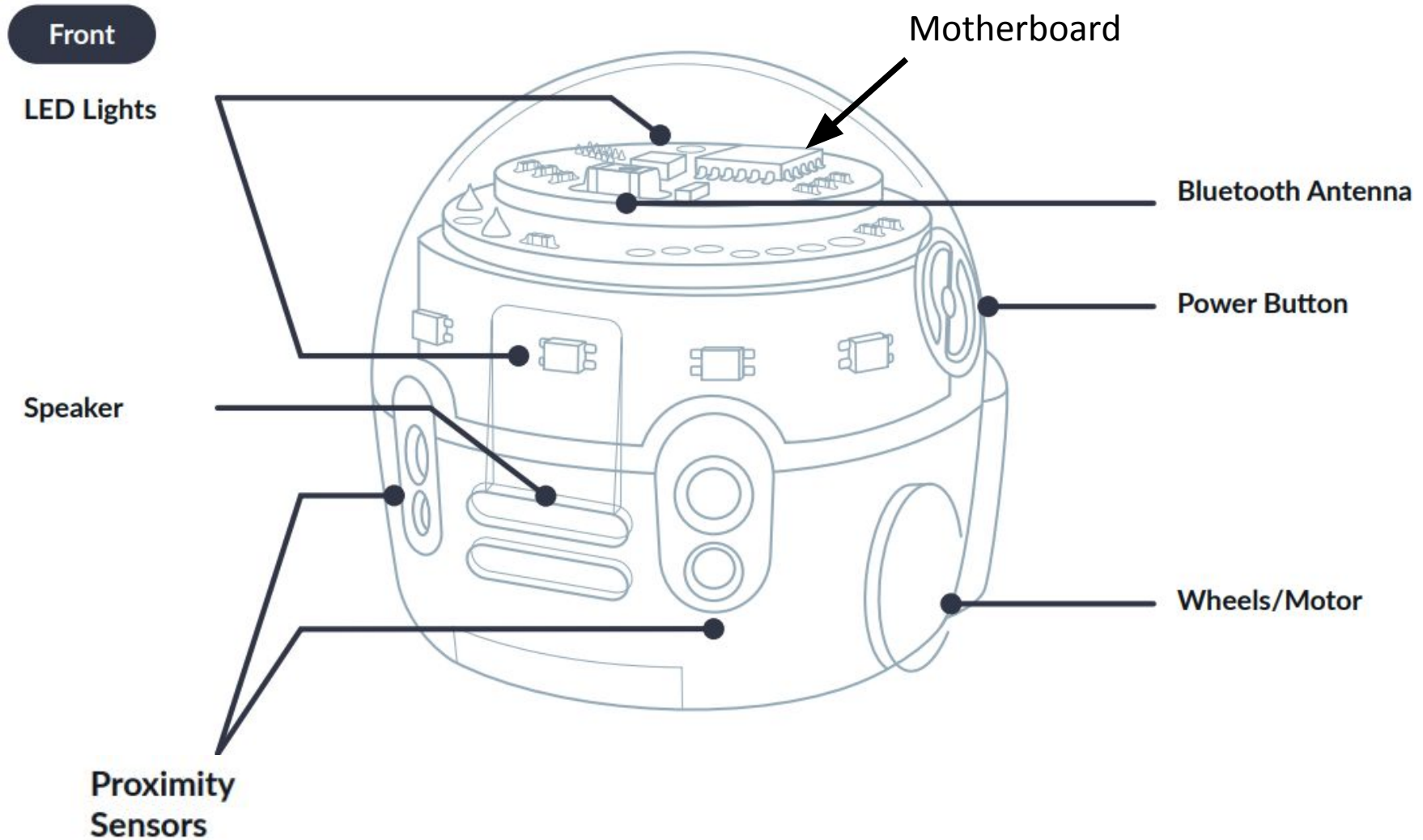
# Item and Type

- Program is item related to Algorithm Type

- Logic is item related to OzoBlockly type

- Storage item is Memory type

- Proximity item is a Sensor Type

# Ozobot Evo: Hardware or parts

- Bluetooth Antenna
- Color Sensor
- Line Following Sensors

- LED Light
- Proximity Sensors
- Power Button

- Speaker
- Charging Port
- Wheels/Motor

# Ozobot Evo: Parts on Front



**Front**

LED Lights

Motherboard

Bluetooth Antenna

Power Button

Speaker

Wheels/Motor

Proximity Sensors

# Ozobot Evo: Parts on Back, Top and Front



Proximity Sensors

Line Following Sensors

Back

Top

Bottom

LED Light

Bluetooth Antenna

Color Sensors

Charging port
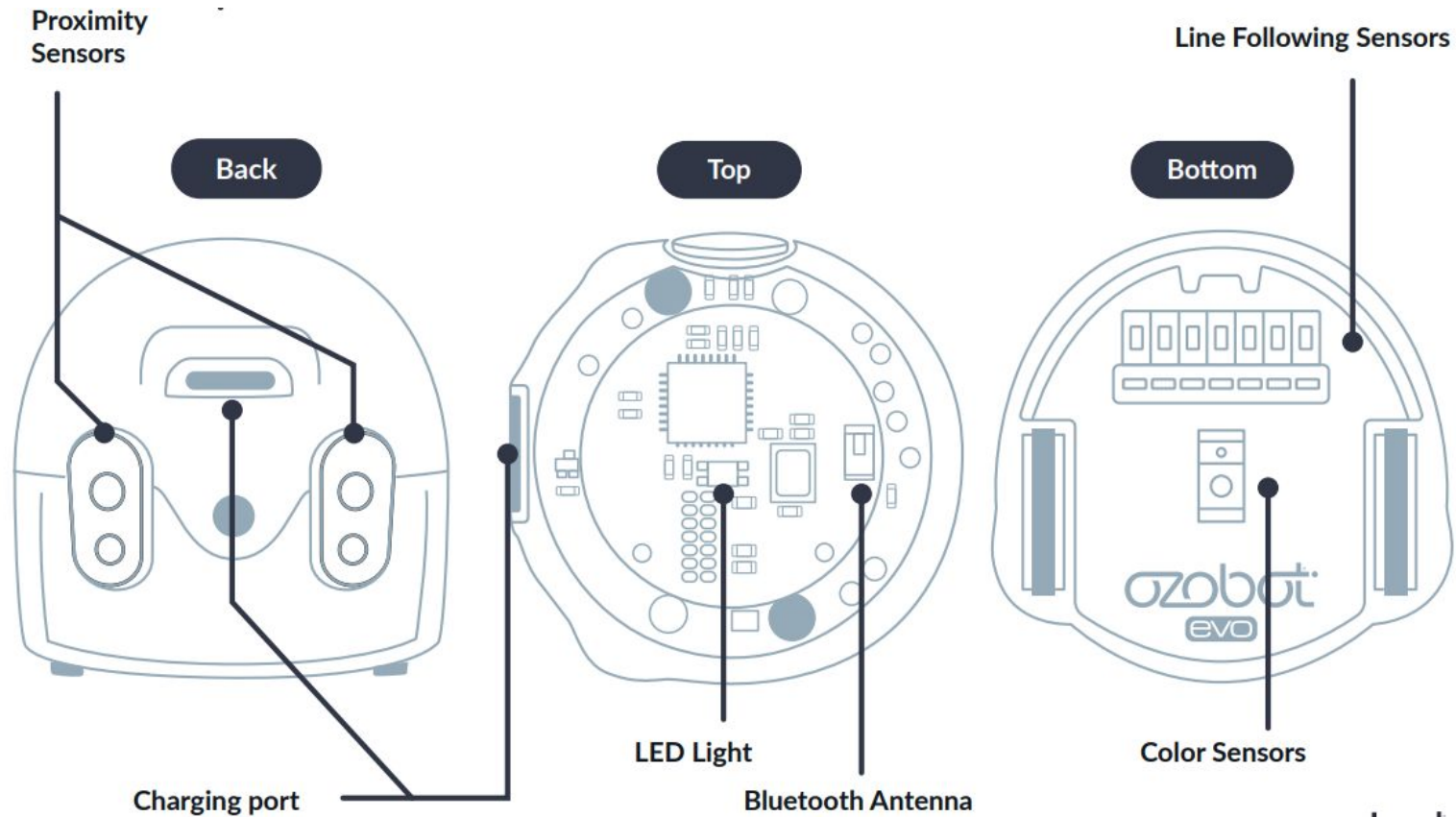
ozobot evo

# Ozobot Evo: Color Codes

**Color Code**: A group of colored blocks found along a black line that instruct Ozobot to perform certain actions.

For Ozobot to read a Color Code correctly, there needs to be at least an inch of black line before the code without a Color Code or intersection.

Most codes need at least an inch after the code too, but some codes need up to two and a half inches after the code to perform the code properly and continue line following.

# Ozobot Evo: Color Codes

**Symmetric Color Codes**: The Color Codes that are the same backward and forward. No matter which direction the bot is traveling when it reads the code, the action of the bot is the same.
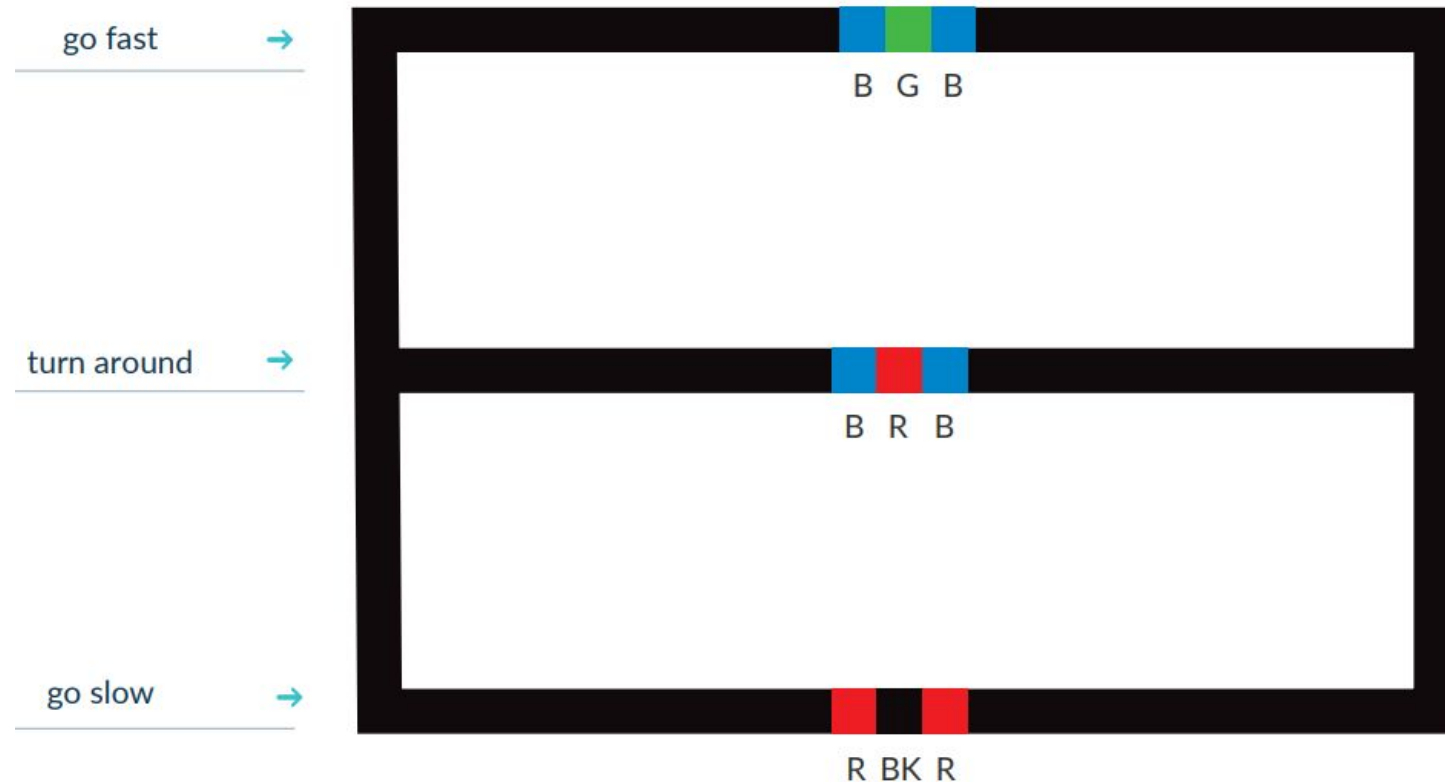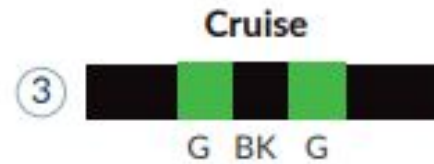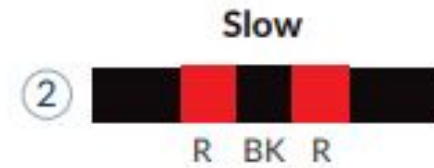
# Ozobot Evo: Color Codes

**Asymmetric Color Codes**: are the codes that program the bot to perform different actions when read from different directions.

# Color Codes 2: Speed
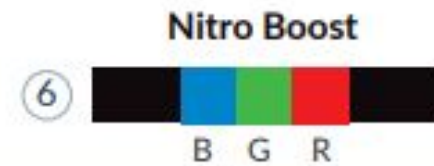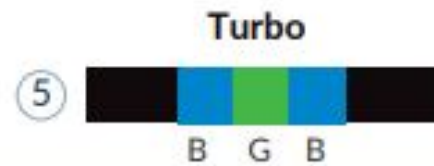
# Color Codes 03 : Special Moves and Win/Exit

# Color Codes 04: Direction

# Color Codes 06: Timers



Color Codes Key

| Timer on (30 sec. to stop) | Pause | Slow | Turbo |
|---|---|---|---|
| R BK B G | R B R | R BK R | B G B |

# Color Codes 07: Line Switch