Beginning Robotics With Ozobot!

https://www.youtube.com/watch?v=2C-jbsfBJvA

Coding=Programming

So what is it?

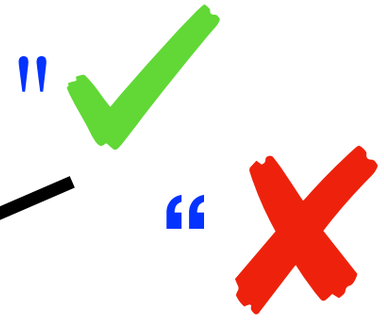
“A set of symbols that can be interpreted by a computer or piece of software.”

Communicating instructions to technology.

HTML

```
<a name="start"></a>
<h2>Prologue</h2>
<p class="first">The sun was at its highest in
a faultless sky. Its brilliance scourged the
barren mountainside with a light as pitiless as
truth. Erratic winds pressed one way, then
another, swirling away all the heat, except for
that hoarded in the tumbled boulders.</p>
<p>Labored breathing rasped from the
throats of the three figures struggling up the
steep path to the mountain’s blunt summit.
Dressed in heavy black robes that reached to
the ground, cowls drawn over their heads,
their progress was halting, unsteady.</p>
```

HTML




```
<a name="start"></a>
<h2>Prologue</h2>
<p class="first">The sun was at its highest in
a faultless sky. Its brilliance scourged the
barren mountainside with a light as pitiless as
truth. Erratic winds pressed one way, then
another, swirling away all the heat, except for
that hoarded in the tumbled boulders.</p>
<p>Labored breathing rasped from the
throats of the three figures struggling up the
steep path to the mountain’s blunt summit.
Dressed in heavy black robes that reached to
the ground, cowls drawn over their heads,
their progress was halting, unsteady.</p>
```

What Will We Learn From Ozobots?

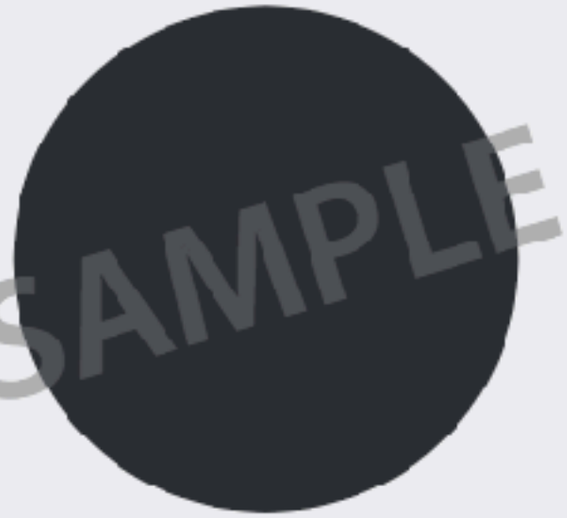
Coding Skills (aka Life Skills)

- Logic/Reasoning
- Attention to Detail
- Team Work
  - Communication
  - Empathy
- Troubleshooting (Debugging)
  - Problem Solving
  - Patience/Frustration Tolerance
  - Positive Mindset

Ozobots are Picky!

PAPER
CALIBRATION

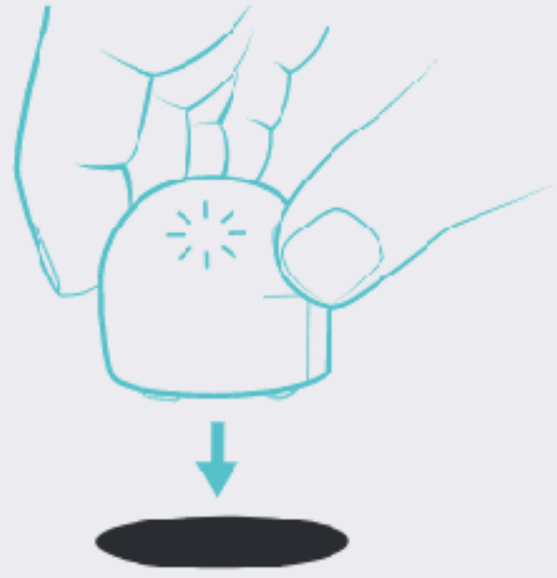
1. Use a black dot slightly bigger than Ozobot to calibrate. If you are using markers, create a similar sized calibration dot using a black marker.



2.

Hold down the power button on Ozobot for 2 seconds until the top LED light flashes white.

3.



Quickly place Ozobot in the middle of the black calibration dot and let go.

4.

If calibration is successful, Ozobot will move and then blink green. Start over if Ozobot blinks red.

Note! Sun or bright lights can blind the Ozobot's sensors

DRAWING LINES

X Too Thin!

X Too Thick!

X Inconsistent!

✓ Just Right

X Too Close!

✓ Just Right

X Too Sharp!

✓ Just Right

✓ Just Right

DRAWING CODES

X

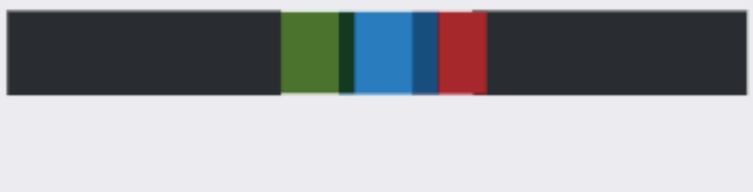
Codes on colored lines

X

Different sizes

X

White spaces

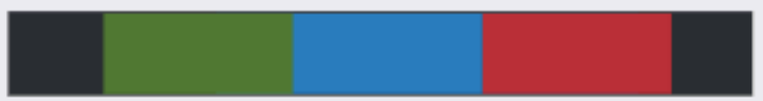


X

Overlapping colors

X

Too dark



X

Single color squares larger than 1/4”

✓

Single color squares approx 1/4”

Codes on black lines

CODE PLACEMENT

X

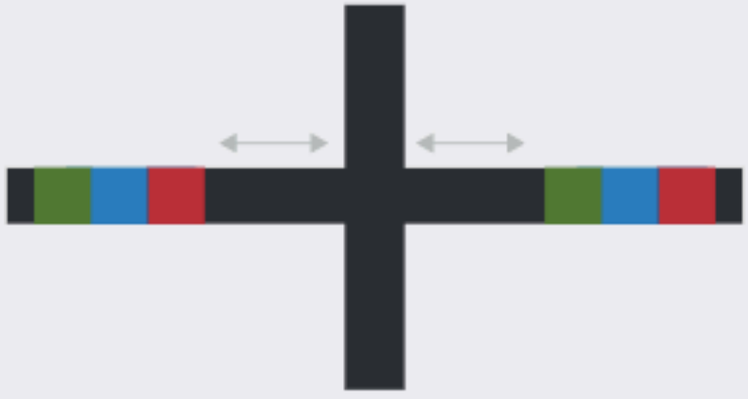
Codes on corners

✓

Keep codes on straight lines away from corners

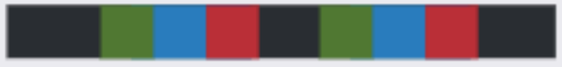
X

Too close to intersection



✓

Place codes away from intersections

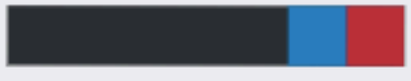


X

Codes too close

✓

Codes at least 1" apart



✓

Two-color codes need to be at line end

✓

All other codes need black line before and after

OzoCodes

ozobot COLOR CODE REFERENCE CHART

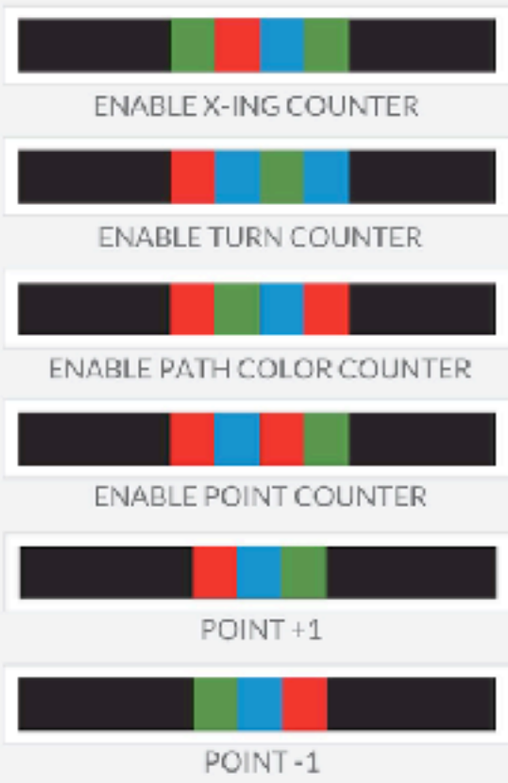
SPEED

WIN/EXITS

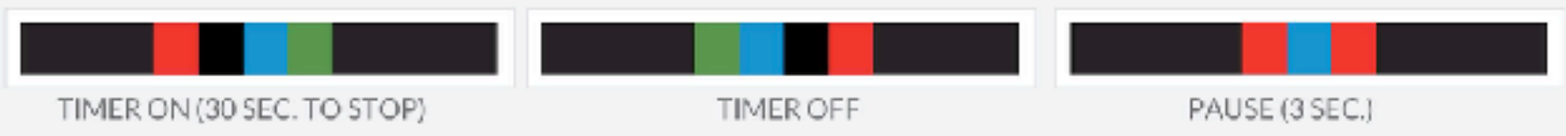
DIRECTION

COUNTERS

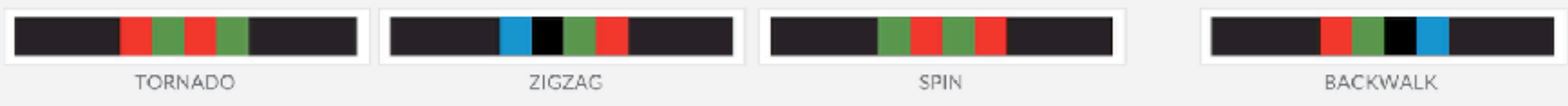
FIVE DOWN TO STOP



TIMERS



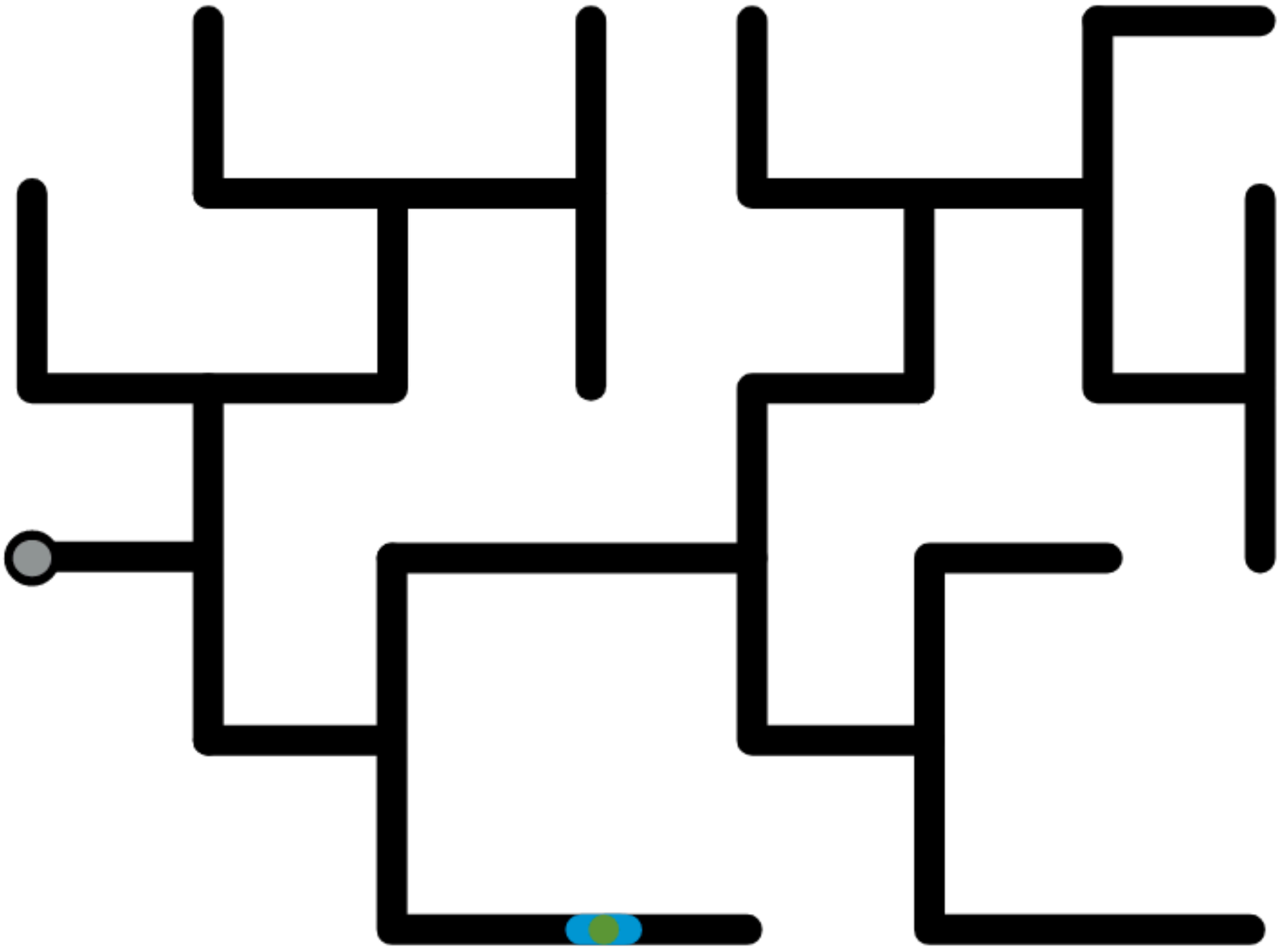
COOL MOVES



https://play.ozobot.com/print/guides/ozobot-ozocodes-reference.pdf

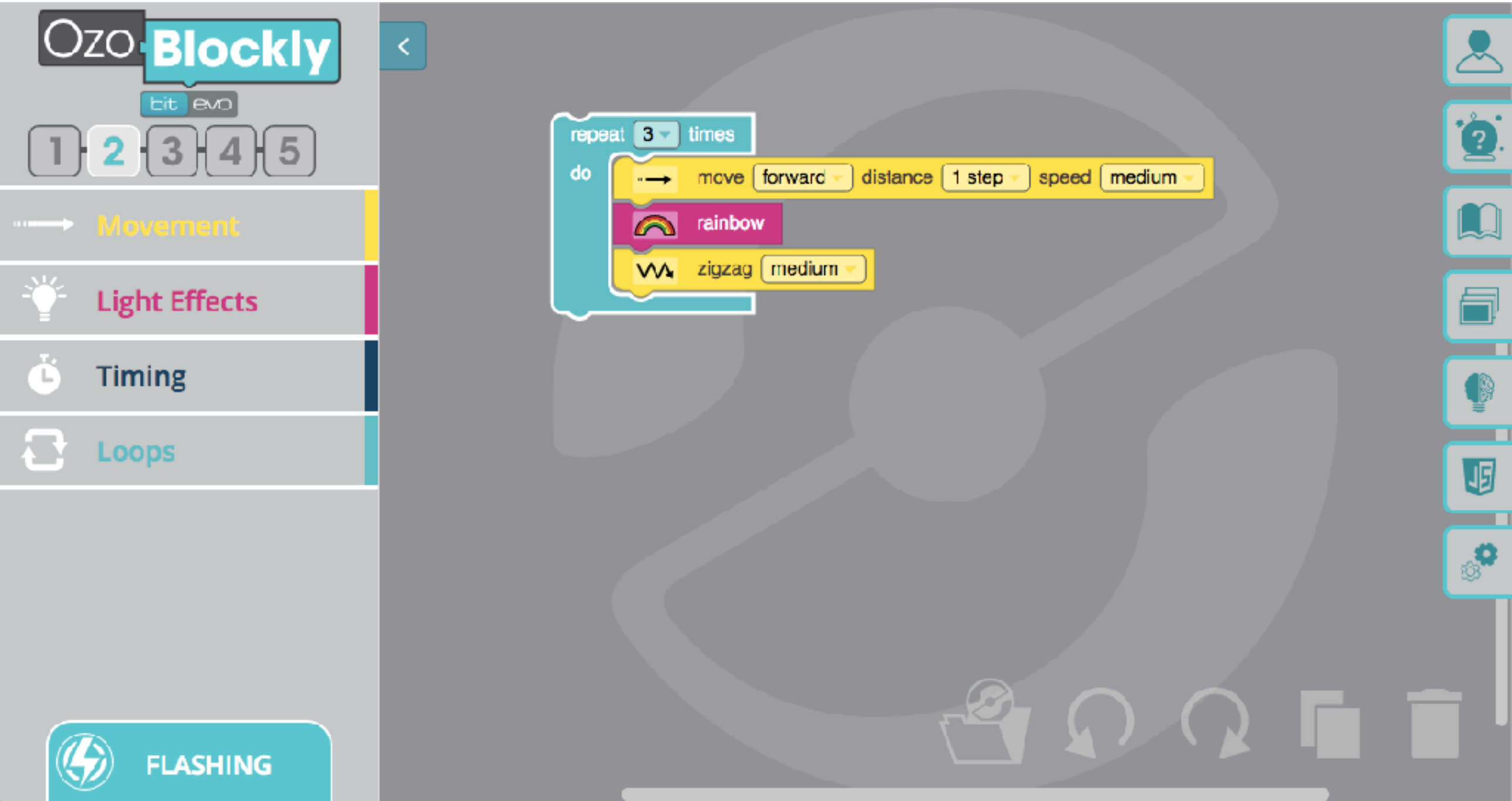
Open Exploration

Maze Challenge

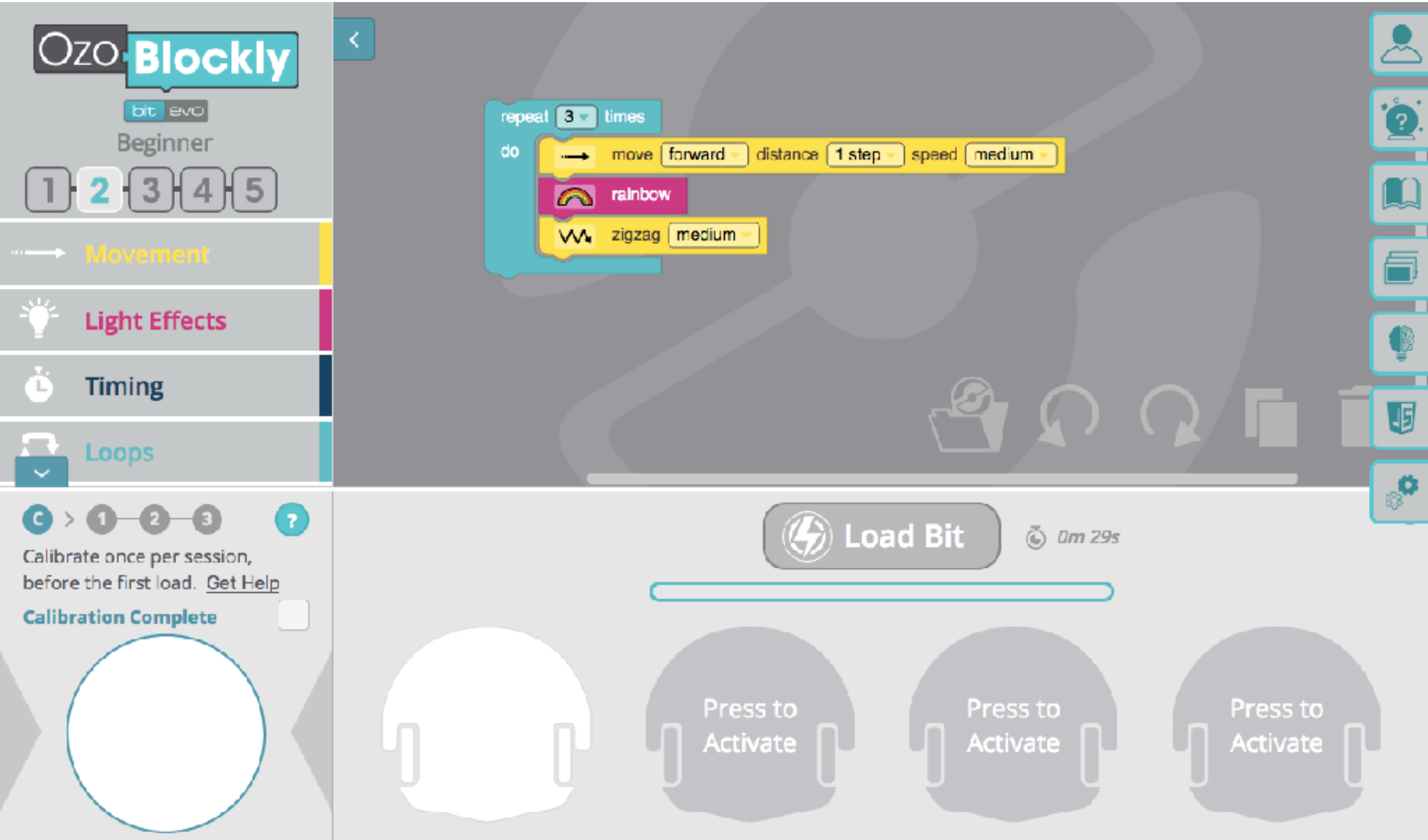


www.OzoBlockly.com

Building a code sequence



Transfer your code



Reflect