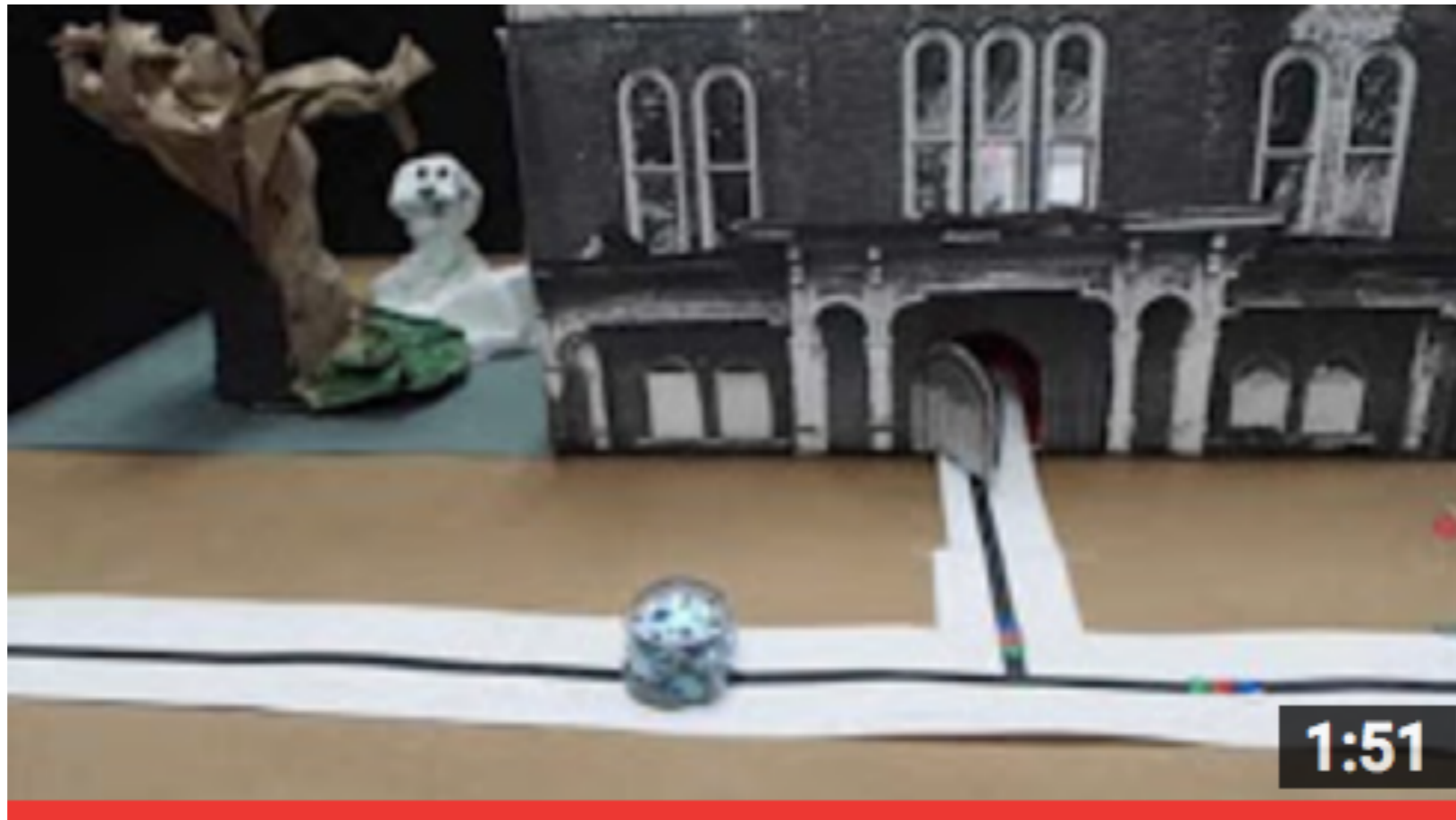


Beginning Robotics With Ozobot!



<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>
```

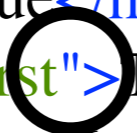
HTML

``

`<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?

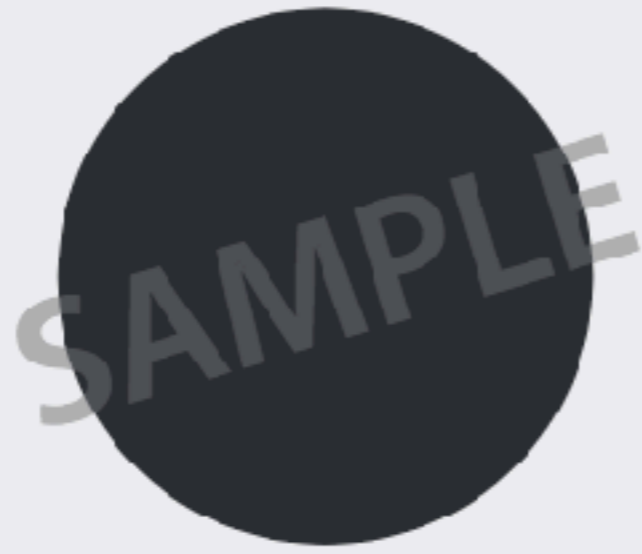
Coding Skills (aka Life Skills)

- **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.

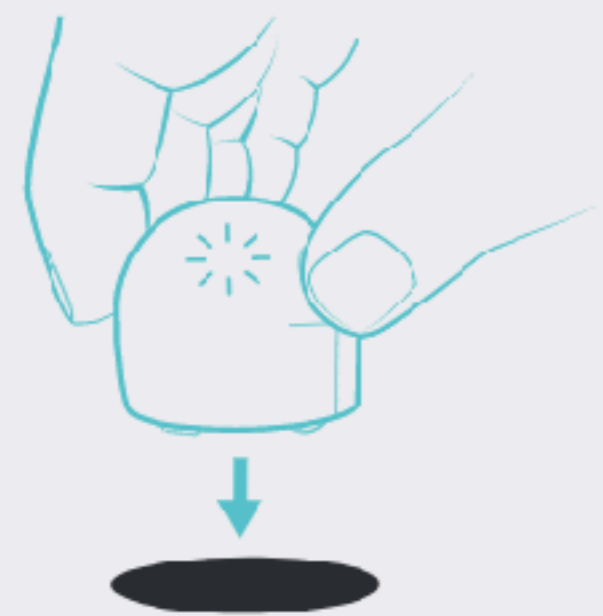


- 2



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



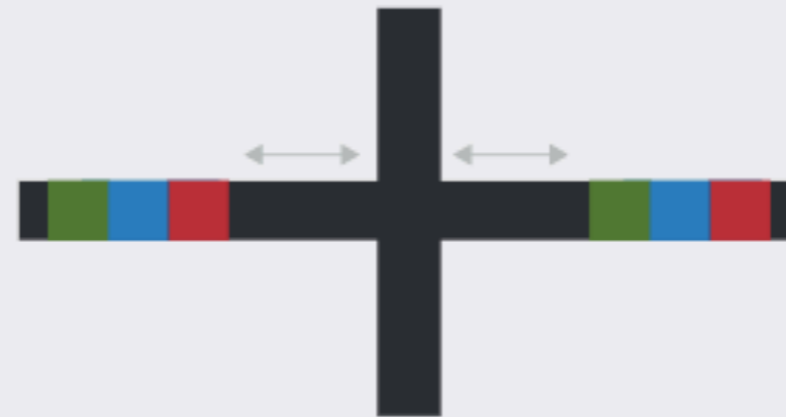
Codes on corners



Keep codes on straight lines
away from corners



Too close to
intersection



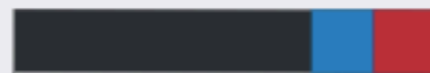
Place codes away
from intersections



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

SPEED



SNAIL DOSE



SLOW



CRUISE



FAST



TURBO



NITRO BOOST

WIN/EXITS



WIN/EXIT (PLAY AGAIN)



WIN/EXIT (GAME OVER)

DIRECTION



GO LEFT



GO STRAIGHT



GO RIGHT



LINE JUMP LEFT



LINE JUMP STRAIGHT



LINE JUMP RIGHT



U TURN



U TURN (LINE END)

COUNTERS

FIVE DOWN TO STOP



ENABLE X-ING COUNTER



ENABLE TURN COUNTER



ENABLE PATH COLOR COUNTER



ENABLE POINT COUNTER



POINT +1



POINT -1

TIMERS



TIMER ON (30 SEC. TO STOP)



TIMER OFF



PAUSE (3 SEC.)

COOL MOVES



TORNADO



ZIGZAG



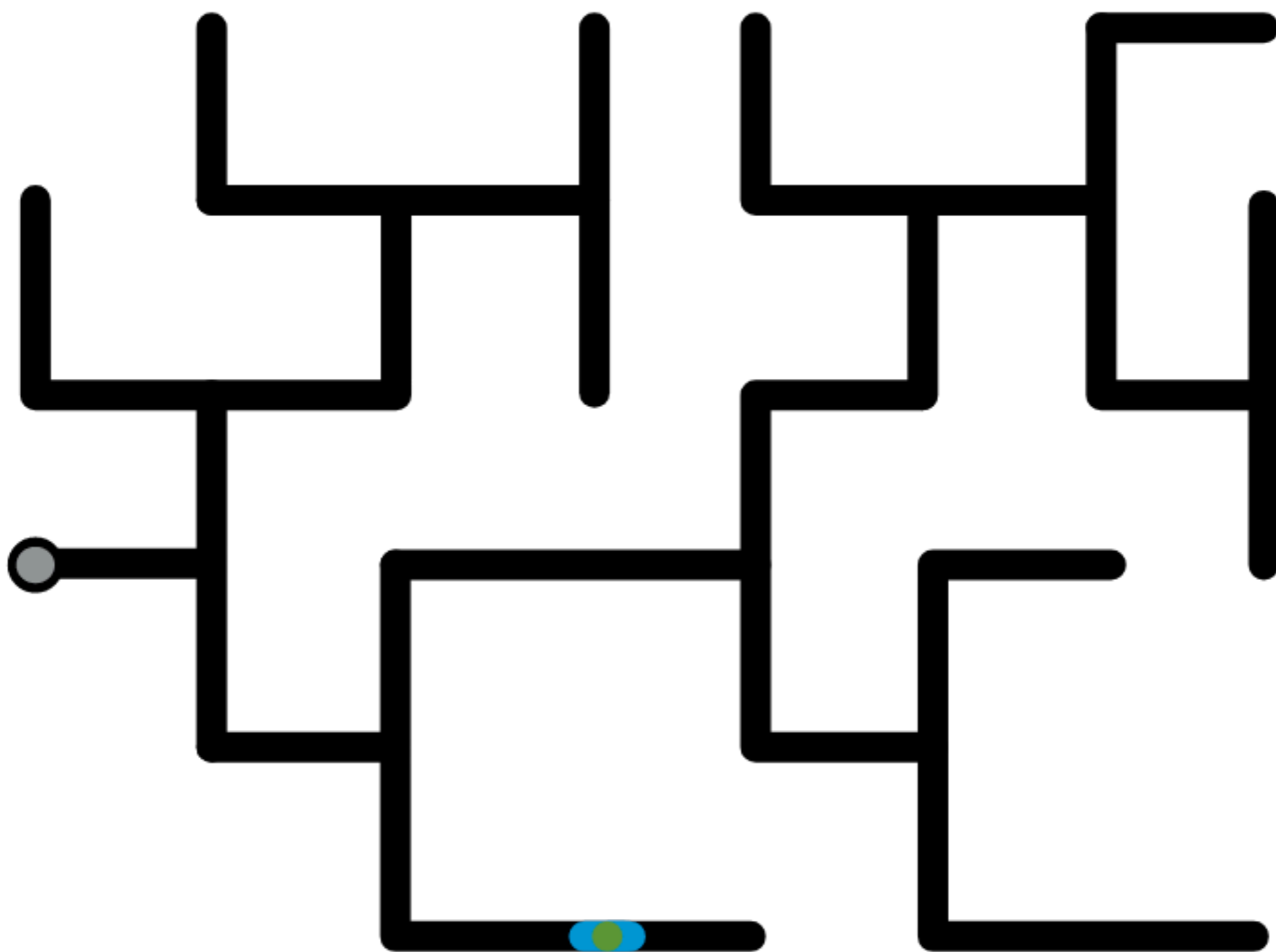
SPIN



BACKWALK

Open Exploration

Maze Challenge



www.OzoBlockly.com

Building a code sequence

The screenshot displays the OZO Blockly programming environment. The interface includes a top-left logo for "OZO Blockly" with "bit" and "evo" sub-labels, and a sequence of five numbered steps (1-5), with step 2 highlighted. A left sidebar lists categories: Movement (yellow), Light Effects (pink), Timing (dark blue), and Loops (teal). A bottom-left button is labeled "FLASHING". The main workspace features a large, faint background image of a robot. A code block is currently being edited, consisting of a "repeat 3 times" loop containing three actions: "move forward" (distance: 1 step, speed: medium), "rainbow", and "zigzag" (medium). A right sidebar contains various utility icons, and a bottom toolbar includes icons for undo, redo, save, and delete.

Transfer your code

The screenshot displays the OZO Blockly interface. On the left, the 'OZO Blockly' logo is visible, along with 'bit evo' and 'Beginner' level indicators. A progress bar shows steps 1 through 5, with step 2 highlighted. Below this, a sidebar lists categories: Movement (yellow), Light Effects (pink), Timing (dark blue), and Loops (light blue). The main workspace contains a code block: a 'repeat 3 times' block containing a 'do' block with three sub-blocks: 'move forward' (distance 1 step, speed medium), 'rainbow', and 'zigzag medium'. At the bottom left, a calibration status shows 'Calibration Complete' with a checkbox. At the bottom center, a 'Load Bit' button is present with a timer showing '0m 29s'. Below the button are three helmet icons, each with the text 'Press to Activate'.

Reflect