

OzoBlockly Editor—**Recognizing Shapes Challenge**—Student Guide

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There are all kinds of two-dimensional geometric shapes—circles, rectangles, parallelograms, triangles, hexagons, and squares. The list could go on and on. In this challenge, however, you will only be concerned with three very basic shapes—**triangles**, **circles**, and **squares**. The ultimate goals of this challenge are:

- To make use of an LLM bot and camera viewing images of these shapes, AND
- Make Ari or Evo traverse from left to right on a larger copy of the Ozomap shown in Figure 1, stopping at each intersection and displaying a green top light if the image contains that shape, or displaying a red top light if the image does not contain the shape.

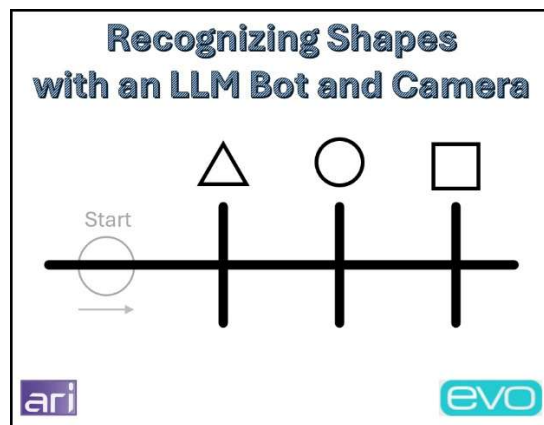


Figure 1

One of the keys to success with this challenge is providing a prompt for the LLM bot that results in a response that is *easy to analyze* with blocks available in the Ozobot Editor.

For example, suppose that you provided the prompt shown in Figure 2. The response shown in the *INPUT/OUTPUT* console is rather long-winded. It would not lend itself to an easy analysis that would allow successful completion of the challenge.

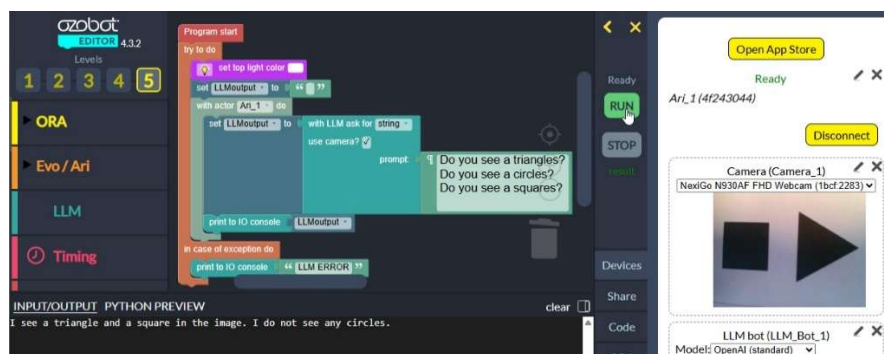


Figure 2

Now, consider the prompt shown in Figure 3. The LLM appears to be very good at following instructions such as the one shown—*“Please respond to each question with the word yes or the word no, separated by blank spaces”*. As you can see in the *INPUT/OUTPUT* console, the response is exactly as requested. This can be analyzed with Ozobot Editor blocks, but the different lengths of the words *yes* and *no* make the analysis a bit more challenging than desired.

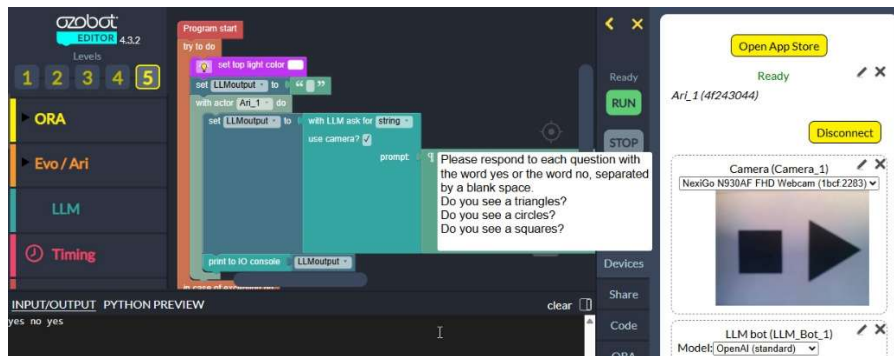


Figure 3

So, let’s tweak the instructions in the prompt to *“Please respond to each question only with Y for yes or N for no, separated by a blank space.”* Figure 4 shows the result. Once again, the LLM has followed the instructions *“to a T”*, borrowing a phrase that originated in the 1600s. Keeping in mind that the response *“Y N Y”* is a string, you should be able to find an appropriate block from the *“Text”* category of blocks that will allow you to isolate the desired letter when Ozobot reaches each of the three intersections on the Ozomap.

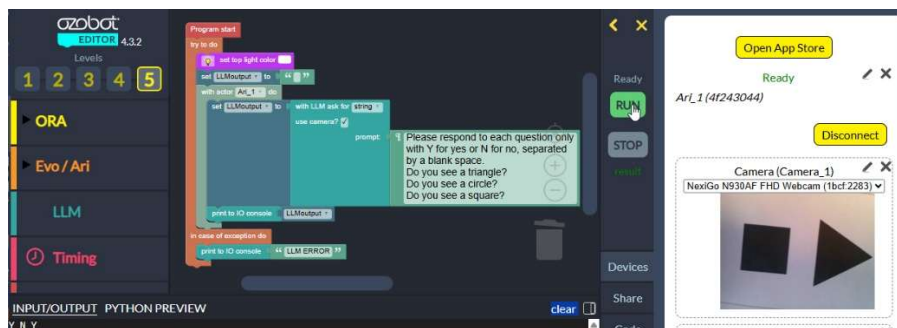


Figure 4

Oh yes, and by the way, you are strongly encouraged to use the **Open AI (standard)** model when programming this challenge. It does a much better job at recognition. Your LLM credits are used up more quickly with this model, so be judicious in your use of the credits. You can test your program by drawing figures on a piece of paper and/or by making use of figures provided by your teacher.

The rest is up to you. Have fun solving and working with the “Recognizing Shapes Challenge”.