



The Great Perimeter Ozobot Race

Created by

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Topics

Mathematics
Robotics
Computer Science

Ages

Grades 5/6

Duration:

approx. 30 minutes

The Great Perimeter Ozobot Race!

Challenge X

Make a rectangle that the Ozobot can complete the fastest.

The rectangle must enclose an area of 36 units².

Steps:

1. Figure out the possible dimensions for the area.
2. Calculate the perimeters for each of your figures.
3. Choose the one figure that you feel the Ozobot can complete the fastest. Explain your choice.
4. Get a piece of grid paper and construct the rectangle using a ruler and a thick, black, "Ozobot friendly" marker.

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Some tips for teachers when conducting this activity:

- *The grid paper is in non-standard units because 1cm grid paper is too small. Initially I used 2cm grid paper and had to enlarge it on the photo copier.*
- *Set your Ozobots to the same speed if you are using more than one in class.*
- *Once students have finished their rectangles on the grid paper and are ready to race their Ozobot, time 1min (or any set amount of time) and see how many laps the Ozobot can do in the given time frame.*
 - *I had students record the number of laps on their grid sheet.*
- *Tell students to ensure that their lines are thick enough for the Ozobot to travel on.*