U3-1.1b Change it up: Drive a hexagon

Even little changes to inputs can make the output of a program completely different. A great example of this is changing the number of repetitions in a loop. Imagine if you wrote a program with a loop that repeats four times, then changed the input so that it repeats three times instead. What would happen when you ran the updated program?

What to do

Write a program for Edison using EdScratch so that your robot can drive in a hexagon. Your program needs to use a definite loop control structure, so be sure to include a repeat block. Your program should be as efficient as possible, so try to use as few blocks as you can while still completing the task.

Download your program to your robot and use activity sheet U3-3 to test your program. Make sure your program has Edison end in the exact same spot where it started.

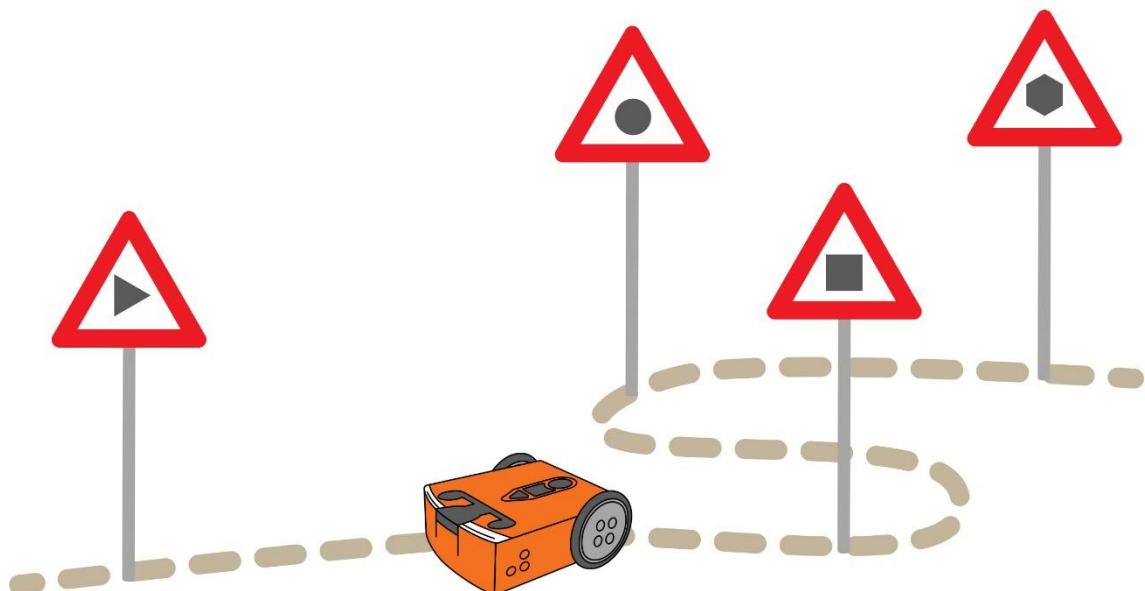1. How many blocks did you need to write a successful program (not counting the start block)?

   Sample student answer: 3

2. What value do you need to have in the input parameter in the repeat block to get Edison to drive a hexagon?

   Sample student answer: 6

3. Why do you need to have that be the value?

   Sample student answer:The value needs to be 6 because a hexagon has six sides and six

   corners. So, the code needs to drive each side and turn each corner a total of 6 times.

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