Name_____

Lesson 4: Worksheet 4.4 – Challenge! Drive in a circle

In this activity, you need to write a program to get your Edison robot to drive in a circle.

Your turn:

Write a program where your Edison robot drives in a circle. Your Edison needs to drive in the shape of a circle, not just spin in one spot.

Download your program and test it using activity sheet 4.4, placing your Edison at the 'start' point and following the line. You can also make your robot drive around any circular object, like a round rubbish bin or a round table.

Hint: A shape with many hundreds of very small sides can closely approximate a circle.

1. How many times does your loop execute to make your shape a circle?

2. How far does your robot travel each time you execute your loop?

3. Does your robot drive in a perfect circle? If not, can you think of a reason why not?

Optional challenge: Draw your shape

Attach a crayon or coloured marker to your robot using some combination of LEGO block pieces or masking tape. Place your Edison on a piece of paper and run your circle program. Watch as the coloured marker draws your shape as the robot moves. See if your Edison draws a true circle or not.