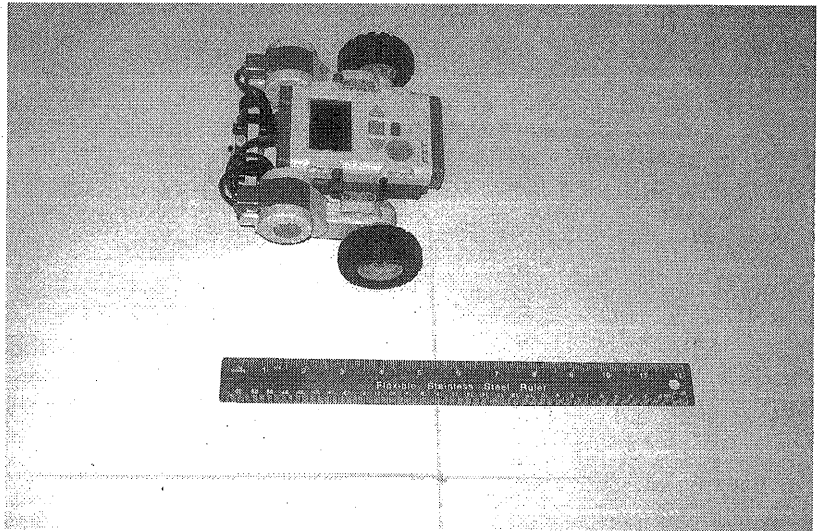


4

Circle the Ruler

Mission: the robot will move around the ruler without touching it by moving in a large square or rectangle.

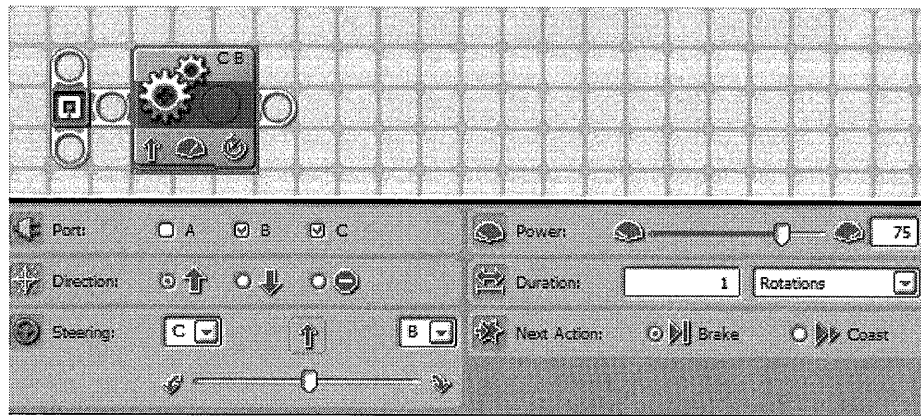
Equipment:
ruler



Sensors:
none

Directions:

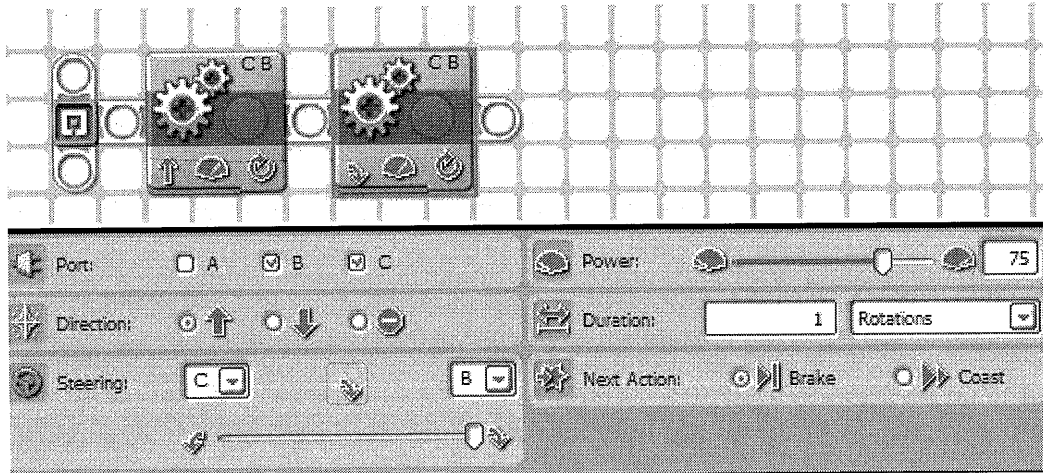
1. Place a move block at the beginning of the program bar and set it to the distance you need to get past the ruler with some room to spare.



The robot travels in a straight line that gets the robot from one end of the ruler to the other.

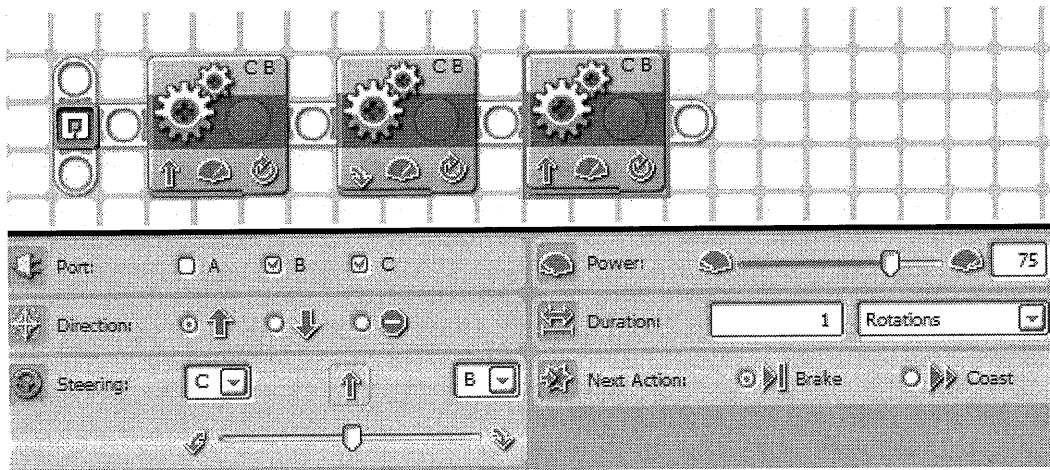
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2. Place another move block and slide the steering bar all the way to the side to make the robot turn in place.



Sliding the slider all the way to the side makes the robot turn in place by spinning one motor forwards and one motor backwards.

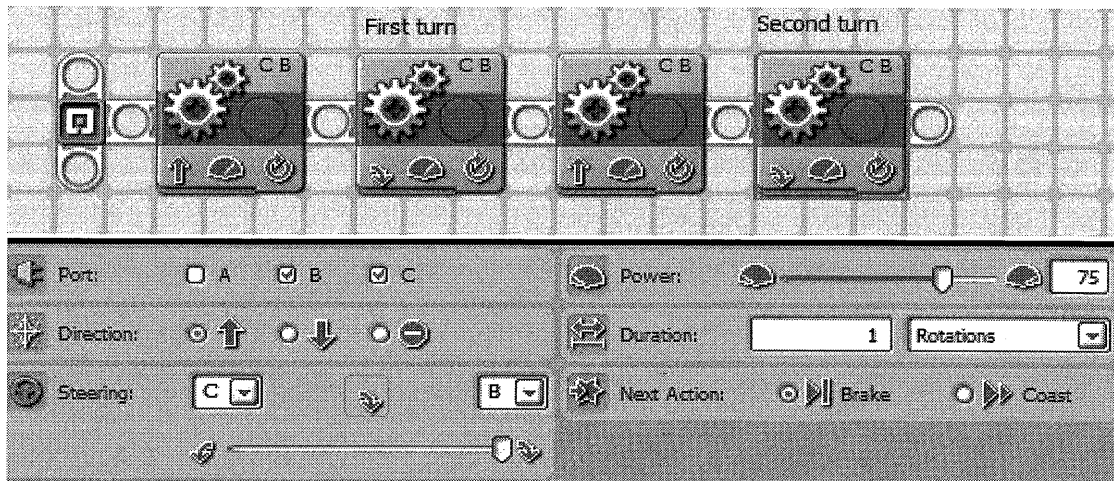
3. Place another move block on the line and set the rotations far enough to get to the other side of the ruler with room to spare.



The ruler will now get to the other side of the ruler.

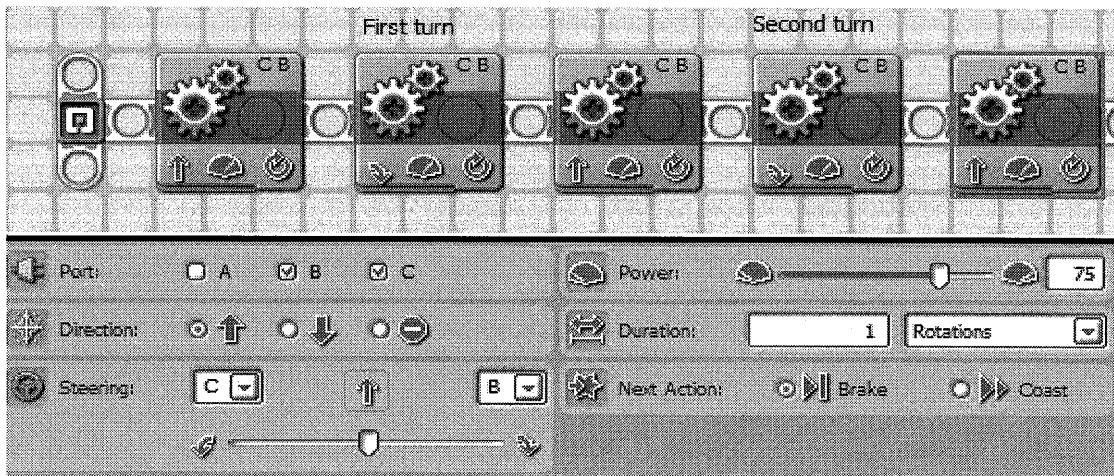
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4. Place another move block and slide the steering bar all the way to the side to make the robot turn in place. This is the second turn.



This turn makes the robot face the opposite way than it started.

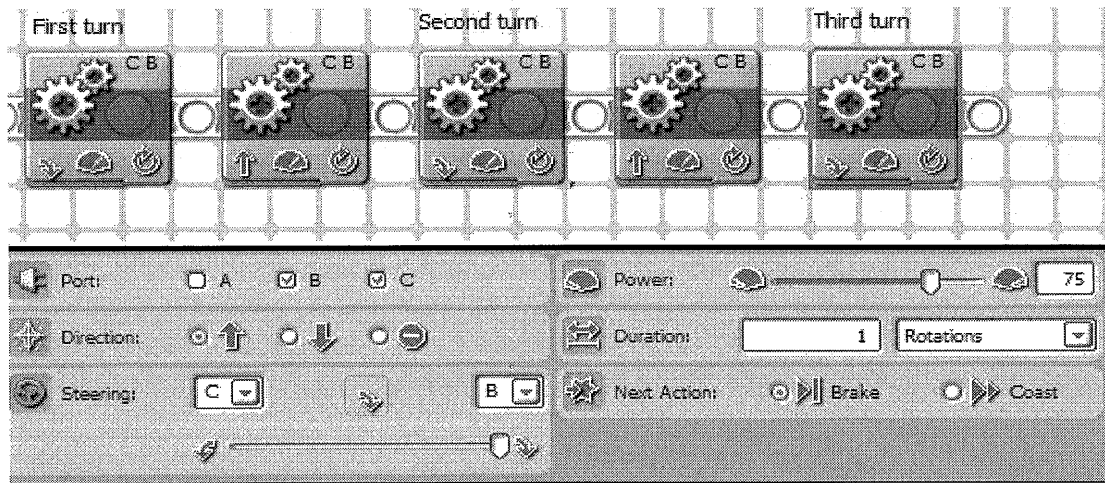
5. Place another move block on the line and set the rotations far enough to get to the other side of the ruler with room to spare.



The robot will have finished a U-shape now.

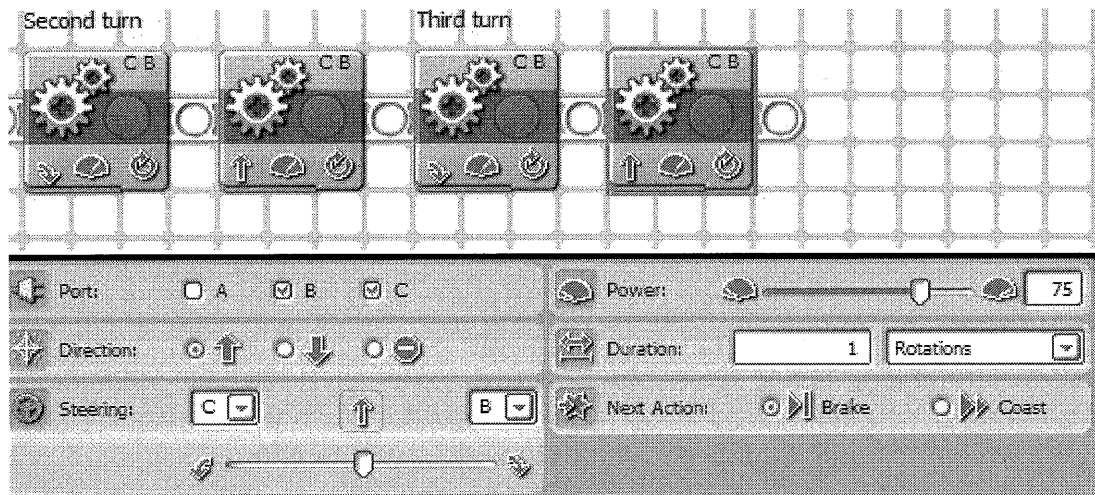
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6. Place another move block on the line and set the rotations far enough to get to the other side of the ruler with room to spare. This is the third turn.



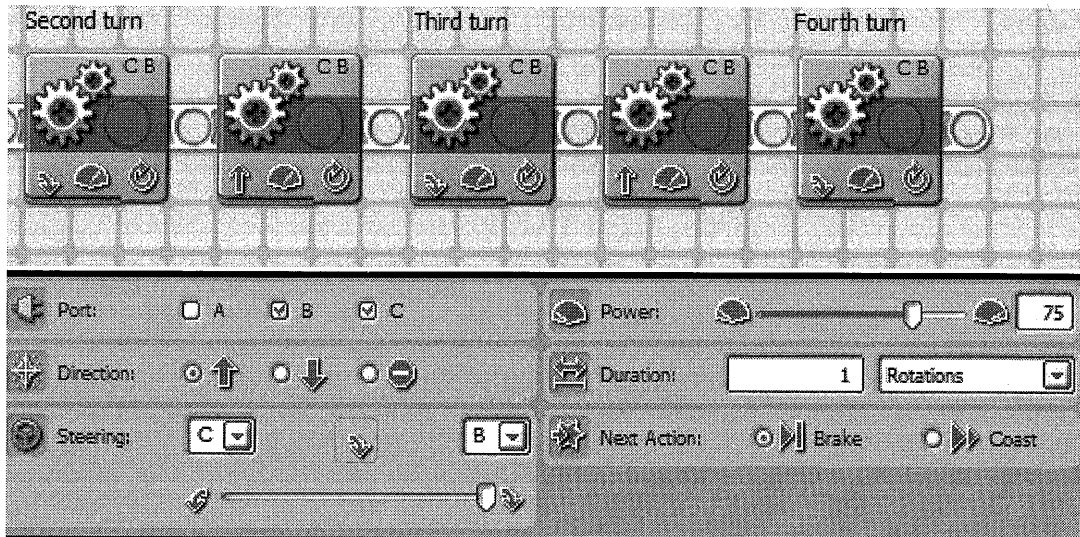
The robot will turn back towards the starting point.

7. Place another move block on the line and set the rotations far enough to get to the other side of the ruler with room to spare and get back to the starting point.



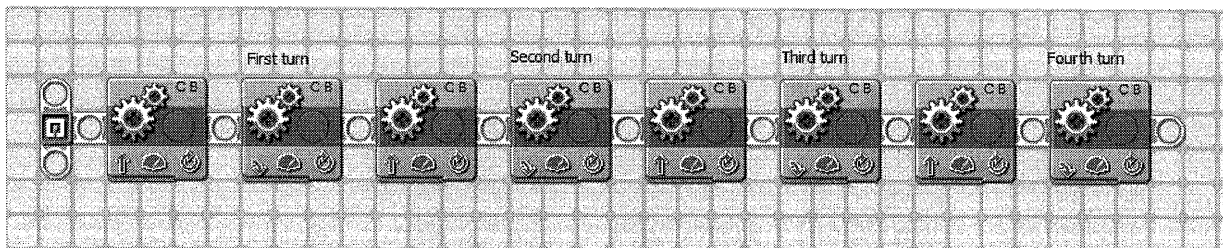
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8. Place another move block on the line and set the rotations far enough to get to the other side of the ruler with room to spare.



This is the fourth turn that should get the robot back to the starting point and facing the way it was when it started. Some of the turns may need to be adjusted to get it back where it should be.

9. The finished program should look like this.



Secret to success: You must not touch the ruler or you have to start over again, but remember something. There is an old saying the way you don't hit something is to never go near it. You don't need to be close to the ruler when you go around it. Stay a good long way from it and your programming will go much quicker.

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