

Between the lines

The task – Program your robot to travel exactly 45cm

1 The motor causes the _____ to rotate, the axle causes the _____ to rotate

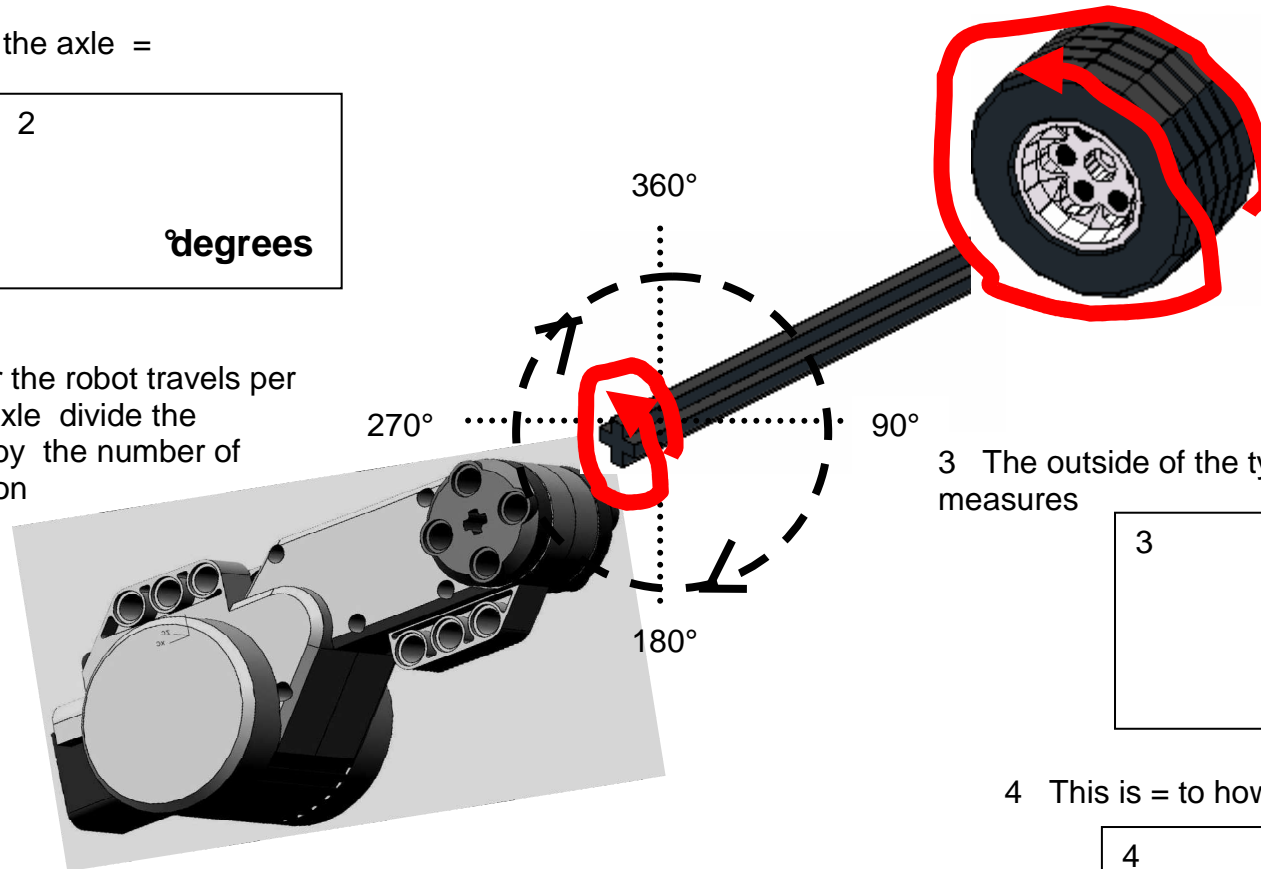
2 One full rotation of the axle = how many degrees?

2
degrees

5 To work out how far the robot travels per degree of turn of the axle divide the circumference in mm by the number of degrees in a full rotation

4

2

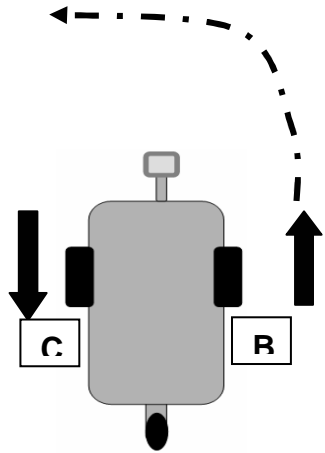


3 The outside of the tyre (circumference) measures

3
cm

4 This is = to how many mm?

4
mm



B motor
Left turn, 90°

1

2

3

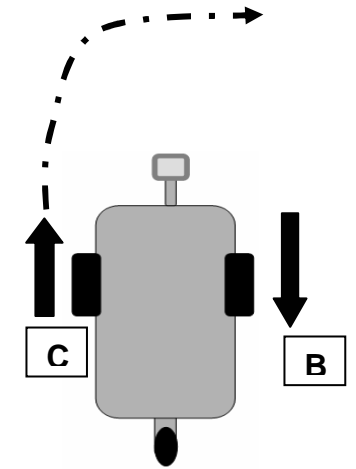
The tyre has a circumference of 18cm (180mm)

One rotation = 360°

	Straight / Turn	cm	= mm	÷ by 0.5 OR X by 2 = °
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1	↑			
2	↻			
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

The robot travels 180mm per 1 rotation (360°) of the wheel. Divide 180 by 360 = the distance the robot travels per degree of rotation = 0.50mm



C motor
Right turn, 90°

1

2

3

The robot travels 0.50mm per degree of rotation

Treasure Island

