

Exercise 3 – Forward!

Group Number

Move Tank Documentation

Move Tank

```
class ev3dev2.motor.MoveTank(left_motor_port, right_motor_port, desc=None, motor_class=<class 'ev3dev2.motor.LargeMotor'>)
```

Controls a pair of motors simultaneously, via individual speed setpoints for each motor.

Example:

```
tank_drive = MoveTank(OUTPUT_A, OUTPUT_B)
# drive in a turn for 10 rotations of the outer motor
tank_drive.on_for_rotations(50, 75, 10)
```

on_for_rotations(left_speed, right_speed, rotations, brake=True, block=True)

Rotate the motors at 'left_speed & right_speed' for 'rotations'. Speeds can be percentages or any Speed-Value implementation.

If the left speed is not equal to the right speed (i.e., the robot will turn), the motor on the outside of the turn will rotate for the full rotations while the motor on the inside will have its requested distance calculated according to the expected turn.

on_for_degrees(left_speed, right_speed, degrees, brake=True, block=True)

Rotate the motors at 'left_speed & right_speed' for 'degrees'. Speeds can be percentages or any Speed-Value implementation.

If the left speed is not equal to the right speed (i.e., the robot will turn), the motor on the outside of the turn will rotate for the full degrees while the motor on the inside will have its requested distance calculated according to the expected turn.

on_for_seconds(left_speed, right_speed, seconds, brake=True, block=True)

Rotate the motors at 'left_speed & right_speed' for 'seconds'. Speeds can be percentages or any Speed-Value implementation.

on(left_speed, right_speed)

Start rotating the motors according to left_speed and right_speed forever. Speeds can be percentages or any SpeedValue implementation.

off(brake=True)

Stop both motors immediately. Configure both to brake if brake is set.

Exercises

1. How far does the robot travel in one wheel revolution? _____ cm
2. How wide is a wheel? _____ cm
3. How far apart are the wheels? _____ cm

Write down the parameters you used when calling the "on_for_rotations" method:

	left_speed	right_speed	rotations
4. Go Faster			
5. Go backwards			
6. Turn left 90 degrees			
7. Turn right 90 degrees			