Linear Motion

This notebook will guide you through controlling an **omni-wheel robot** step by step. You'll see an **example**, then try to complete a similar challenge on your own!

In [ ]:
```python
# This part allows VScode to communicate with the robot
# This imports the required libraries and then creates a node for our robot
import sys
import os
import time

# Add parent directory to the Python path
sys.path.insert(0, os.path.abspath('..'))

import rclpy
from controllers.omni_robot_controller import OmniWheelControlNode  # Import

# Initialize ROS2 node
rclpy.init()
node = OmniWheelControlNode()
```

Challenge: Create a Custom Function for user input

In [ ]:
```python
# Challenge
# For this challenge you are going to ask the user for an input speed and ti
# In order to be safe you need to make sure the speed isn't greater than 3 m
# You also need to make sure time isn't greater than 3 seconds.


# Ask the user for an input speed and/or a time.
# You may want to consider using a while loop and if statements to check the
# meet the requirements
# Write this code below:




# Write the code to execute the robot movement at their speed and time below
```

Shutting Down the Node

Once you're done, **shutdown the node** properly.

In [ ]:
```
node.destroy_node()
rclpy.shutdown()
```