

Review:

There are multiple ground robot configurations:

- Omni-directional
 - Can point its wheels in any direction and apply power to move
- Bicycle model
 - Has two motors
 - One controls Speed
 - One controls Direction
 - Commonly used in self-driving cars
- Differential drive
 - Each motor controls speed and direction on one side of the robot
 - If both side have wheels moving forward at the same speed, then the robot goes straight
 - If each side of the robot has wheels spinning in opposite directions, then the robot spins in a circle
 - If both wheels are moving in the same direction but at different speeds, then the robot travels in an arc motion

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Challenge Questions:

Create a list of strategies/guidelines that you would use to determine which type of drive system a selected ground robot will get.

Let's try it out! Using your criteria above, how would your guidelines determine which drive train these robots get. Justify your selection.

Robot	Drive type configuration	Justification
<p>Tractor This robot will be on uneven ground and will need to mow lawns.</p>		
<p>Warehouse This robot will be working on a smooth factory floor and will need to move palettes from one row to another</p>		
<p>Office/Hospital This robot will be moving around people and objects and placing items in various locations that may change (putting items on available shelf space, ect.)</p>		

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