Programming Robots with ROS

HW4 – Due Oct 23

To answer the problems, below, you must not copy text from any outside source. If you use any figures in your explanation, you must draw them yourself. (The requested images can be copied, but must be cited.) A paragraph or two is sufficient.

1. [30 pts] In the context of ground vehicles, define an "omnidirectional vehicle" and compare and contrast it with respect to a "holonomic vehicle." Find images of three examples of each and include them, with full citation for where you got the images.

2. [20 pts] Describe the "mecanum wheel." Classify it as omnidirectional or holonomic and justify your classification. Provide images of three examples (with citations).

3. [20 pts] Describe an "Ackermann-steered vehicle" and compare it to the above. Is it omnidirectional or holonomic? Provide images of three examples (with citations).

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