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(54) Title: CLUTTER-CLEARING ROBOTIC SYSTEM

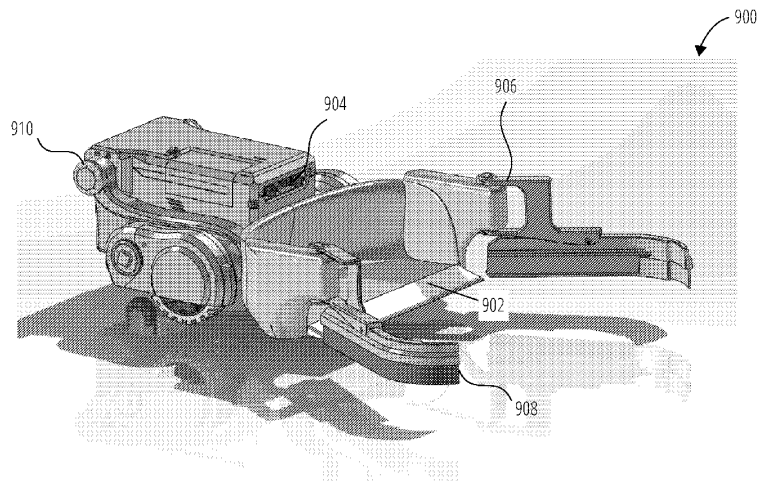


FIG. 9

(57) Abstract: A robot is operated to navigate an environment using cameras and map the type, size and location of objects. The system determines the type, size and location of objects and classifies the objects for association with specific containers. For each category of object with a corresponding container, the robot chooses a specific object to pick up in that category, performs path planning and navigates to objects of the category, to either organize or pick up the objects. Actuated pusher arms move other objects out of the way and manipulates the target object onto the front bucket to be carried.

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WO 2022/115761 A1

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