CLAIMS

1. A robot comprising:

a mobile base comprising a top surface, a bottom surface arranged opposite the top surface, and a set of wheels coupled to the bottom surface;

a robotic arm operatively coupled to the mobile base, the robotic arm configured to rotate relative to the mobile base about a first axis, the first axis extending in a direction normal to the top surface of the mobile base;

a suction-based gripper coupled to the robotic arm;

at least one antenna configured to receive one or more signals from a monitoring system external to the robot; and

a computer processor configured to:

determine a location of the robot within an environment of the robot;

set an operational limit on an operating speed of the robotic arm and/or a positioning of the robotic arm relative to the mobile base while the robot is located at the location within the environment of the robot;

adjust the operational limit based, at least in part, on the one or more signals received by the at least one antenna; and

control the robot to perform the one or more operations according to the operational limit.

2. The robot of claim 1, further comprising a plurality of distance sensors.

3. The robot of claim 2, wherein the mobile base is rectangular, and wherein at least one of the plurality of distance sensors is disposed on each side of the mobile base.

4. The robot of claim 2, wherein a field of view of each distance sensor of the plurality of distance sensors at least partially overlaps with a field of view of at least one other distance sensor of the plurality of distance sensors.

5. The robot of claim 4, wherein the field of view of each distance sensor of the plurality of distance sensors at least partially overlaps with a field of view of each of at least two other distance sensors of the plurality of distance sensors.

6. The robot of claim 2, wherein:

a first field of view of a first distance sensor of the plurality of distance sensors at least partially overlaps with a field of view of a second distance sensor of the plurality of distance sensors and a field of view of a third distance sensor of the plurality of distance sensors; and

a field of view of a fourth distance sensor of the plurality of distance sensors at least partially overlaps with the fields of view of the second distance sensor and the third distance sensor.

7. The robot of claim 6, wherein the mobile base comprises four sides, wherein:

the first distance sensor is disposed on a first side of the four sides of the mobile base;

the second distance sensor is disposed on a second side of the four sides of the mobile base;

the third distance sensor is disposed on a third side of the four sides of the mobile base; and

the fourth distance sensor is disposed on a fourth side of the four sides of the mobile base.

8. The robot of claim 6, wherein the fields of view of the first distance sensor and the fourth distance sensor do not overlap, and wherein the fields of view of the second distance sensor and the third distance sensor do not overlap.

9. The robot of claim 2, wherein each distance sensor of the plurality of distance sensors is associated with a field of view, wherein a combined field of view that includes the fields of view from all of the plurality of distance sensors is a 360-degree field of view.

10. The robot of claim 1, further comprising a wheeled accessory coupled to the mobile base.

11. The robot of claim 2, further comprising a wheeled accessory coupled to the mobile base, wherein a wheel of the wheeled accessory occludes an area of a first field of view of a first distance sensor of the plurality of distance sensors, and wherein a second field of view of a second distance sensor of the plurality of distance sensors includes at least a portion of the occluded area of the first field of view.

12. The robot of claim 1, wherein the at least one antenna is configured to receive the one or more signals wirelessly.

13. The robot of claim 12, further comprising a perception mast operatively coupled to the mobile base, wherein the perception mast comprises a plurality of sensors, and wherein the at least one antenna is mounted on the perception mast.