Claims

What is claimed is:

1. An automated system for spraying an wall of a building, the system comprising:

a linear track;

a robotic mechanism slidably mounted on the linear track, the robotic mechanism further having an end effector adapted to support a spray nozzle thereon, wherein the linear track is disposed horizontally with respect to the height of the building;

a visual monitoring system configured to scan structural characteristics and profiles of the wall;

a computing device disposed in communication with the visual monitoring system and the robotic mechanism, wherein the computing device is configured to receive the scanned structural characteristics and profile of the wall from the visual monitoring system; and

a controller communicably coupled to the computing device, the controller configured to independently control operation of respective ones of the robotic mechanism, and the spray nozzle according to the scanned structural characteristics and profiles of the wall.

2. The system of claim 1, wherein the linear track is mounted on a aerial work platform.

3. The system of claim 1, wherein the linear track is mounted on a boom lift.

4. The system of claim 1, wherein the linear track is mounted on a sciccor lift.

5. The system of claim 1, wherein the linear track is a two-way track comprises at least two axes movements allowing the robotic mechanism to slide over the two axes movements.

6. The system of claim 1, wherein the two-way track comprises a second linear track slidably mounted on a first linear track, and the robotic mechanism is slidably mounted on the second linear track, such that the robotic mechanism is slidable over the two axes movement.

7. The system of claim 1, wherein the linear track is mounted on a gondola installed on a building, wherein the gondola comprises at least suction cups located at a free end of each linear actuator and disposed in an opposing relation to the wall of the building, wherein the suction cups are configured to selectively adhere with the wall of the building for positioning the gondola.

8. The system of claim 7, further comprises

a stabilizer platform disposed below the gondola, and moveably connecting to the gondola through a connecting bar, and a drive system adapted to operatively position the stabilizer platform relative to the gondola along the connecting bar; and

a secondary suction mechanism installed on the stabilizer platform, wherein the secondary suction mechanism is separately controlled to adheres to the wall of the building,

wherein operationally when the stabilizer platform is moving in relation to the gondola, at least either one of the suction cups or the secondary suction mechanism is adhered to the wall of the building.

Claims

What is claimed is:

1. An automated system for spraying a wall of a building, the system comprising:

a carrier;

a robotic mechanism mounted on the carrier, the robotic mechanism further having an end effector adapted to support a spray nozzle thereon;

a visual monitoring system configured to scan structural characteristics and profiles of the wall;

a computing device disposed in communication with the visual monitoring system and the robotic mechanism, wherein the computing device is configured to receive the scanned structural characteristics and profile of the wall from the visual monitoring system; and

a controller communicably coupled to the computing device, the controller configured to independently control operation of respective ones of the robotic mechanism, and the spray nozzle according to the scanned structural characteristics and profiles of the wall.

2. The system of claim 1, wherein the carrier is an aerial work platform.

3. The system of claim 2, wherein the carrier comprises a boom lift.

4. The system of claim 3, further comprising a linear track located on the carrier and disposed horizontally with respect to the height of the building, wherein the robotic mechanism is slidably mounted on the linear track.

5. The system of claim 3, further comprising a two-way track disposed on the carrier, wherein the robotic mechanism is slidably mounted thereon,

the two ways tracks comprises at least two axes movements allowing the robotic mechanism to slide over the two axes movements.

6. The system of claim 2, wherein the carrier comprises a scissor lift.

7. The system of claim 6, further comprising a linear track located on the carrier and disposed horizontally with respect to the heigh of the building, wherein the robotic mechanism is slidably mounted on the linear track.

8. The system of claim 6, further comprising a two-way track disposed on the carrier, wherein the robotic mechanism is slidably mounted thereon, the two ways tracks comprises at least two axes movements allowing the robotic mechanism to slide over the two axes movements.