Claims

What is claimed is:

1. An automated system for spraying an 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;

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;

a stabilizer platform disposed below the carrier, and moveably connecting to the carrier through a connecting bar, and a drive system adapted to operatively position the stabilizer platform relative to the carrier 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 carrier, at least a suction cup in the carrier or the secondary suction mechanism is adhered to the wall of the building.

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 heigh 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.

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

10. The system of claim 9, 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.

11. The system of claim 9, 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.