



RoboWash

Window washing is one of the most hazardous occupations in building maintenance industry. Even with strict OSHA regulations, every year dozens of workers are injured or killed as the result of window cleaning accidents.

The need to create safer practice, in conjunction with heavy labor costs, presents an opportunity to develop an automated system for window cleaning.

The advents of robotic technologies in the past decade makes the use of such machines a viable option for this application. The robots are designed to maneuver around the building facade, on pre-trained routes and are capable of detecting and avoiding obstacles.

The robot's body is manufactured from light weight plastic and arms are made stainless steel. They move using articulated arms, attached to suction cups that are engaged using compressed air. Water, air, and power is supplied through a flexible hose attached to the robot and hung from the top of the building. There are safety cables which will secure the robot in case of power failure or malfunction. The cleaning process involves the use of a wiper arm which is capable of wetting, wiping and drying tasks.

The building can utilize multiple robots that are controlled via a central processing system. The operation can be performed 24-7.