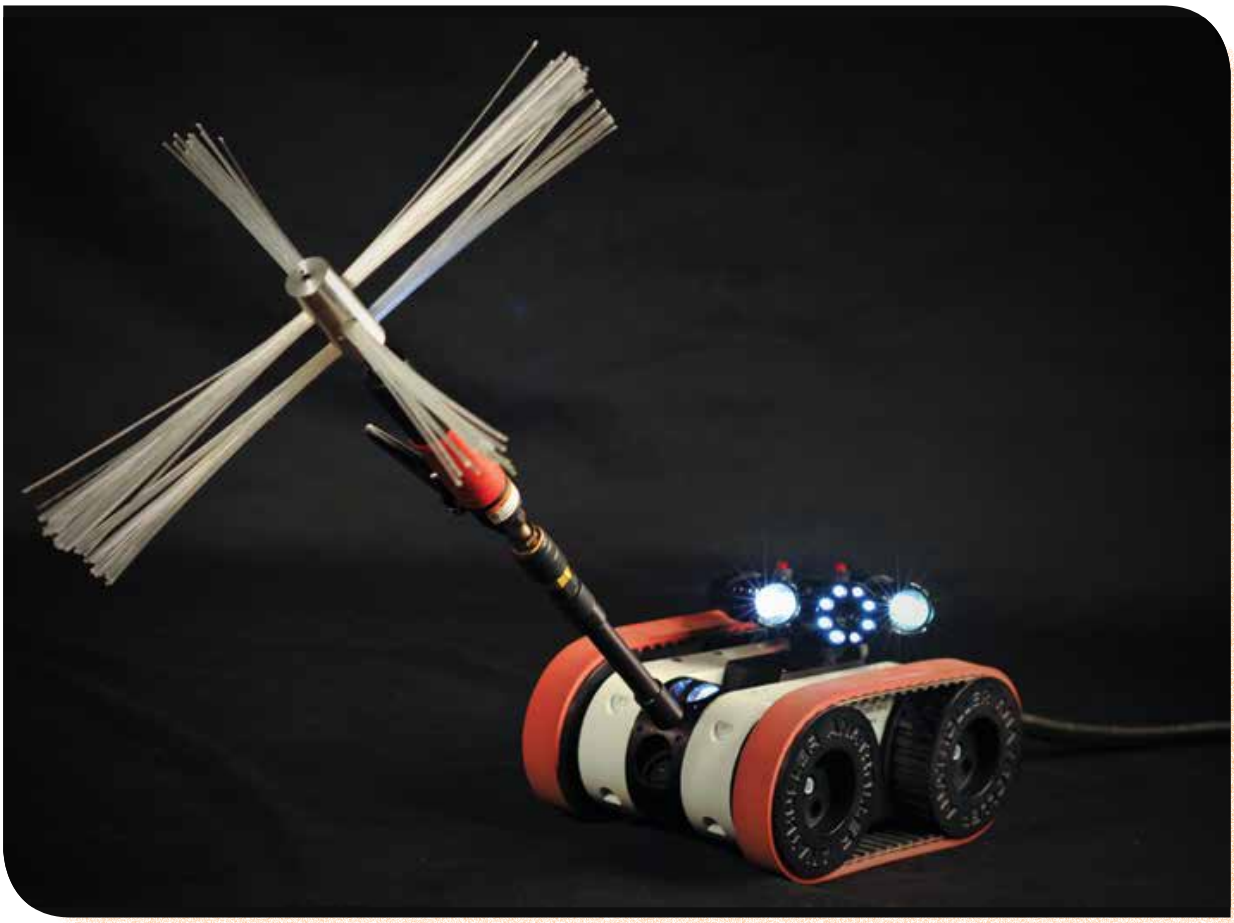

Raising Duct Cleaning Standards

by Nayab Malik, Robotics Design

Hot and humid weather are prime breeding grounds for mould and dust mite infestation. This growing problem plagues building owners and creates constant issues of health and quality of life. Impediments such as decreased concentration and colds become commonplace; and there is no shortage of information on how this environment also causes respiratory diseases, asthma, migraines and permanent allergies. Without the proper attention and the proper cleaning equipment, the problem will continue to persist. It is important that professionals and occupants alike benefit from the overall shift towards better duct cleaning practices.

The traditional duct cleaning method is to hire many workers and have them clean the duct manually. This slow and painstaking process also comes with its own set of problems. The job may not even begin before the duct has been appraised by a structural engineer. This is to see if the duct is safe to crawl through without folding for breaking; causing countless workplace accidents.

An article seen in a 2014 edition of NADCA Ductales addresses the problems in the standardization in the equipment for duct cleaning. It examines the issue of low quality equipment and the difficulty - even for veteran duct cleaners - to properly assess the area of contamination. As more regulations in NADCA and governmental standards are being enforced, many professional duct cleaners have turned to robots instead of crawling into ducts to clean manually.

The main issue with the market is that although robots are becoming the norm; the standard of most robots is not up to par with the issues that come within the duct cleaning industry. To be considerable, the robot must be light weight, reliable, rise slopes and avoid obstacles. Another major problem lies in the internal structure of the duct; inside the duct, the joints are put together with nails - posing a problem for most robots to overcome.

Increasingly more European and North American professionals are looking into alternatives to mitigate manual cleaning for critical jobs that require higher standards of sanitation such as hospitals or chemical laboratories. Disease control is an important factor when considering basic standard of working environment. Ducts are often ignored when sanitation and cleaning comes to mind; however, the importance is higher than all others as they contain and breed bacteria and moulds. With the complexity and the range of capabilities to address, robotics is becoming more accessible and the more dependable alternative.

One of the leading technology that sets the standard for all other duct cleaning robots is seen through the ANATroller™ technology created by Charles Kairallah (source) as a standard for robotic cleaning mechanics. Three types of robots are seen being suited for various needs – depending on the size of the ducts. AWT (Advanced World Trading) an infection prevention and air quality company based out of KSA says that “The ANATroller robot has a unique brushing technology… with an articulated arm that provide(s) brushing and air injectors, and we can adjust them while the robot is working in the duct, unlike other robots on the market.” This sets a standard for the future of Middle Eastern markets. Robots are trusted by leading duct cleaners around the world as their primary competitive advantage, and have helped many of those duct cleaners become the leaders they are now.

It is such technologies that are taking on the duct cleaning industry. And it is time for us to move in the direction that they are taking us into assessing duct cleaning practices and raising the standards. ●