

The Future of Cobot Cleaning

12 months ago



In recent years, collaborative robots, or 'cobots,' have become increasingly important to the commercial cleaning industry. To shed more light on the subject, Bradley Reames, Managing Director at [Peartree Cleaning](#), explains all.

Unlike traditional industrial robots, which require isolation from human workers, cobots are designed to safely work alongside people in various tasks, augmenting human capabilities rather than replacing them. In commercial cleaning, cobots can perform repetitive, time-consuming, freeing cleaning operatives to focus on higher-value activities. However, like any new technology, there are several pros and cons that need to be considered before including cobots in our strategies for 2025.

Automating labour-intensive tasks

As a leading commercial cleaning company, technology is crucial to our business. We've fully embraced new and innovative cleaning solutions that deliver efficiencies for us and our clients, and there is no doubt that cobots can help us to achieve these efficiencies by automating the most repetitive and time-consuming tasks. We've recently invested over £20,000 in new ZAKO X1000 cobots to use specifically at our open plan office contracts, meaning we can free our existing workers to take on more value-adding tasks while the cobots look after the large space floor cleaning.

Limited operational benefits

However, for other commercial cleaning companies like us who specialise in office cleaning, cobots offer limited operational benefits. While they are excellent at performing repetitive and structured tasks, they struggle with real-world environments. Cobots can't open doors or navigate complex environments like an office with obstacles like chairs, cables and clutter. They are also significantly slower than people and lack the dexterity to perform a number of simple cleaning tasks such as wiping down surfaces and edges,

cleaning windows, or emptying bins which require fine motor skills and adaptability – tasks that our cleaning operatives perform on a daily basis.

For many of our clients our cleaning teams have worked at their offices for several years and have formed great working relationships with their employees. Our people often address specific ad-hoc customer needs, respond to questions, and provide assistance beyond their daily cleaning duties. Cobots, while efficient, will always lack the human touch.

High investment costs

As we have found, cobots represent a significant upfront cost which many small to mid-sized cleaning companies may struggle to justify. These costs stem from the advanced sensors, software, and safety mechanisms needed to ensure cobots can work safely alongside humans. Additionally, initial setup, programming, and training expenses add to the upfront investment. While cobots are generally easier to program than traditional industrial robots, they still require skilled labour to integrate them into existing workflows. Despite these high initial costs, cobots can offer a positive return on investment over time by increasing efficiency, reducing labour costs, and enabling flexible automation. However, for commercial cleaning companies with limited capital, the initial expense remains a significant challenge, potentially delaying their adoption of cobot technology.

Energy consumption and environmental impact

Cobots generally consume less energy than traditional industrial robots, which makes them an eco-friendlier option for many businesses. However, despite their efficiency, the environmental impact of cobots still includes the energy required for their production, as well as the materials used, which often include metals and plastics. And although they can potentially reduce the use of cleaning chemicals and water, cobots require electricity or batteries to operate. This is a big consideration for businesses who have committed to reduce their energy consumption or carbon footprint.

Finding the right balance

The key to success for commercial cleaning companies lies in finding the right balance between automation and people. Peartree is wholly committed to using technology to help us work smarter, shown by our recent investment in ZAKO X1000 and our bespoke quality management system. This system – Peartree 360, fully revolutionises service tracking for our clients, allowing them to gain access to real-time data encompassing various aspects of their account such as health and safety, sustainability, quality audits, management visits, PPMs, staff training records and invoicing.

As technology continues to advance, cobots will likely play a more prominent role in commercial cleaning. However, whilst they can arguably improve efficiency in certain tasks, at the moment they come with eye watering investment costs and more importantly for us reduced flexibility in environments that we specialise in.

So, while they are unlikely to replace cleaning operatives soon, cobots can be a valuable tool in supporting them. By automating repetitive tasks and enabling human workers to focus on more complex responsibilities, we believe they can help cleaning companies to create safer, cleaner, and more sustainable environments for everyone.