

Case Study: Upper Merion Area School District

Testimonial by: William Dillon, Custodial Coordinator



Our Introduction to Intellibot

The Upper Merion School District in Philadelphia, PA., has always desired to do more with less and make the most of available resources. As a result, we first considered introducing a robotic floor cleaner into our schools several years ago. In 2007, we returned a call from Intellibot Robotics and took our first look at the company's IS800 scrubber. We weren't quite yet comfortable with a robot, so instead opted for a more familiar manual cleaner.

Still intrigued by augmenting our staff with an autonomous floor cleaner that would allow janitors to focus on harder to clean areas, we called Intellibot again in late 2008. We examined their IS800c, a combination sweeper and scrubber; however, we didn't purchase one due to concerns about job security among our custodial crew.

By 2010, the country's economic conditions had clearly deteriorated and, as with many districts around the nation, significant budget cuts were inevitable in the Upper Merion School District. While we wanted – and needed – to do more with less in terms of our finances, we also wanted to do more with less in terms of our natural resources. As part of a district-wide energy saving program, we turned to Intellibot once again.

In November 2010, Intellibot demonstrated its 10th generation (G10) sweeper/scrubber product, the DuoBot.

We were convinced of its immediate environmental and financial savings and purchased our first DuoBot in December.

A Robot as Staff Multiplier

The DuoBot proved to be an intuitive machine with tremendous cost-savings benefits. Even with our stringent sanitary standards, its green features quickly translated into cost savings, as it required less water and cleaning detergent. An on-board recycling and purification system cycles through up to 15 gallons of water per shift, ensuring a consistently high level of cleanliness.

"The DuoBot proved to be an intuitive machine with tremendous cost-savings benefits."

With the ability to both sweep debris and scrub in one pass, the machine virtually cut floor cleaning time in half and made a definitive impact on labor, allowing janitorial staff to address other areas. Because the DuoBot works autonomously, all we had to do was prep it, position it and let it operate in the late hours when HVAC systems have been shut down. School administrators monitored cleaning activity through the DuoBot's recordkeeping and reporting mechanisms, which furnished an important new level of accountability.

The Results Speak for Themselves

The DuoBot's success in one school prompted a second purchase in May 2011. Today, our high school and our middle school both benefit from a dedicated high tech, eco-friendly approach to floor cleaning. Earlier concerns about the addition of robotic floor cleaners to our custodial arsenal have been put to rest: the machines are simple to operate, have paid for themselves from day one, and were implemented only as custodians voluntarily left or changed departments.

Our DuoBot purchases were integral to the Upper Merion School District's energy saving program. We reduced our custodial operating budget by \$504,000; the robot accounted for about 25% of the labor savings.

A DuoBot cleans an entire school with just 15 gallons of water, saving the school – not to mention the environment – 65 gallons of water a day. In one school year, the district obviously saves a significant amount in water costs. The floor sweeper/scrubber also uses substantially less detergent, providing additional district savings in cleaning chemicals.

“With the ability to both sweep debris and scrub in one pass, the machine virtually cut floor cleaning time in half and made a definitive impact on labor, allowing janitorial staff to address other areas.”

The addition of two DuoBots has allowed the Upper Merion School District to maintain the highest level of cleanliness in its schools when economic conditions were making it nearly impossible to do so.

A Final Word

Because we've experienced such powerful results in operational and environmental savings, we're convinced that Intellibot robotic cleaners can help other districts achieve similar outcomes. Given almost every school district's need to contain costs now, and in years to come, the best bet is a bot.