



# Michigan State University Innovates Cleaning

EMMA Case Study



# Innovation Elevates Cleaning.

"We've been able to reallocate 60 hours of work a month and have our staff focus more heavily on disinfecting, bathrooms, trash and other touch-ups."

BRANDON BASWELL,  
Campus Service Manager at Michigan State University

Michigan State University, in East Lansing, Michigan, has one of the largest college campuses in the United States. It sits on a sprawling 5,239 acres and is made up of 549 buildings, that is a lot of space to maintain daily. As one of the largest public universities in Michigan, MSU has a lot to focus on, one of the most important being maintaining a clean and healthy campus so students can focus on research and learning as "conducting research at the highest caliber" is one of their core values and is applied across curriculum's and departments.

For Brandon Baswell, Campus Service Manager in the Infrastructure Planning and Facilities division at MSU, this focus is no different. Maintaining 549 buildings in order to ensure the health and safety of students and faculty is a complex job. The IPF Infrastructure Planning and Facilities division, looking for ways to maintain such a large campus effectively and efficiently, is always in search of innovative forms of technology as a way to give the campus community access to state-of-the-art technology. Over two years ago they rented EMMA, an autonomous floor scrubber in order to address challenges they were facing with building maintenance.

## THE CHALLENGE

# High Turnover is Costly.

One of the many challenges faced by Baswell and the IPF division at MSU is high turnover and being short staffed. Not having enough employees on staff at the right time makes it difficult to maintain the campus to the standards they want to achieve. The maintenance and cleaning job sector face these challenges across the U.S. due to abnormal work hours and lack of skilled laborers. By adding in high-level technology like EMMA, MSU was able to elevate the skills required to complete the work due to the handling of high-tech machinery as part of the job. Combined with MSU's push to be leaders in the use of new technologies, and the IPF's need to address employee shortages, the college decided to add two autonomous floor scrubbers to the team, both EMMA, the autonomous floor scrubber.

## WHY MSU CHOSE EMMA?

One of main reasons for choosing EMMA was the incredible ease of learning and working with the technology - Baswell points out. Ease of use, taking over mundane tasks and elevating the craft of cleaning, not to mention the overall ROI, all made the decision for adding technology to the team a good one.

## THE SOLUTION

# Efficiency Made Easy.

The staff is freed up to focus on the more detailed work that needs additional attention, “That person can be more effective for something we don’t have a machine for,” Baswell adds. Adding autonomous technology has helped off-set staff shortages and assist in getting all jobs done to standard.

By adding EMMA to the building and maintenance team, Baswell has been able to reallocate labor. for example, instead of a person spending time operating the machine they can start it with the click of a button and as the machine runs autonomously “they can work on collecting trash, recycling, cleaning door glass, and touch ups.” Plus, they are able to spend more time disinfecting, he says.

Additionally, adding technology like EMMA to the team has helped elevate the “cleaning craft” Baswell says. This is because workers are trained on how to use very expensive equipment and it is essentially “elevating the profession.” He goes on to say his biggest recommendation for adding machines like EMMA is “it’s effective use of labor.” Adding EMMA alleviates the staff from having to do mundane work and allows them to focus on more detailed and highly important tasks that cannot be automated.

## THE RESULTS

# A Healthy and Productive Campus.

Overall ROI has made a huge impact. Just one of the jobs that EMMA picked up, cleaning the floors in the Biomedical and Physical Sciences building, typically took a person 15 hours a week to complete. EMMA decreased that time by 5 hours and completed cleaning the same amount of floor space in 10 hours a week. The ROI on this is an annual cost savings of \$29k for the college, and this is just for one building. Additionally, those 15 hours that a person spent cleaning the floors have been re-allocated to more detailed tasks- that's an extra 60 hours of work each month that can be re-directed.

In another example, EMMA was able to clean the Business College Complex in 2.5 hours less per week than the average time it took for a person to complete the floor cleaning responsibilities. This saved the college just over \$14k per year and added an additional 30 hours of work time for more detailed, higher-level tasks.

# \$29k

Annual Cost Saved

# 60

Hours Saved a Month

