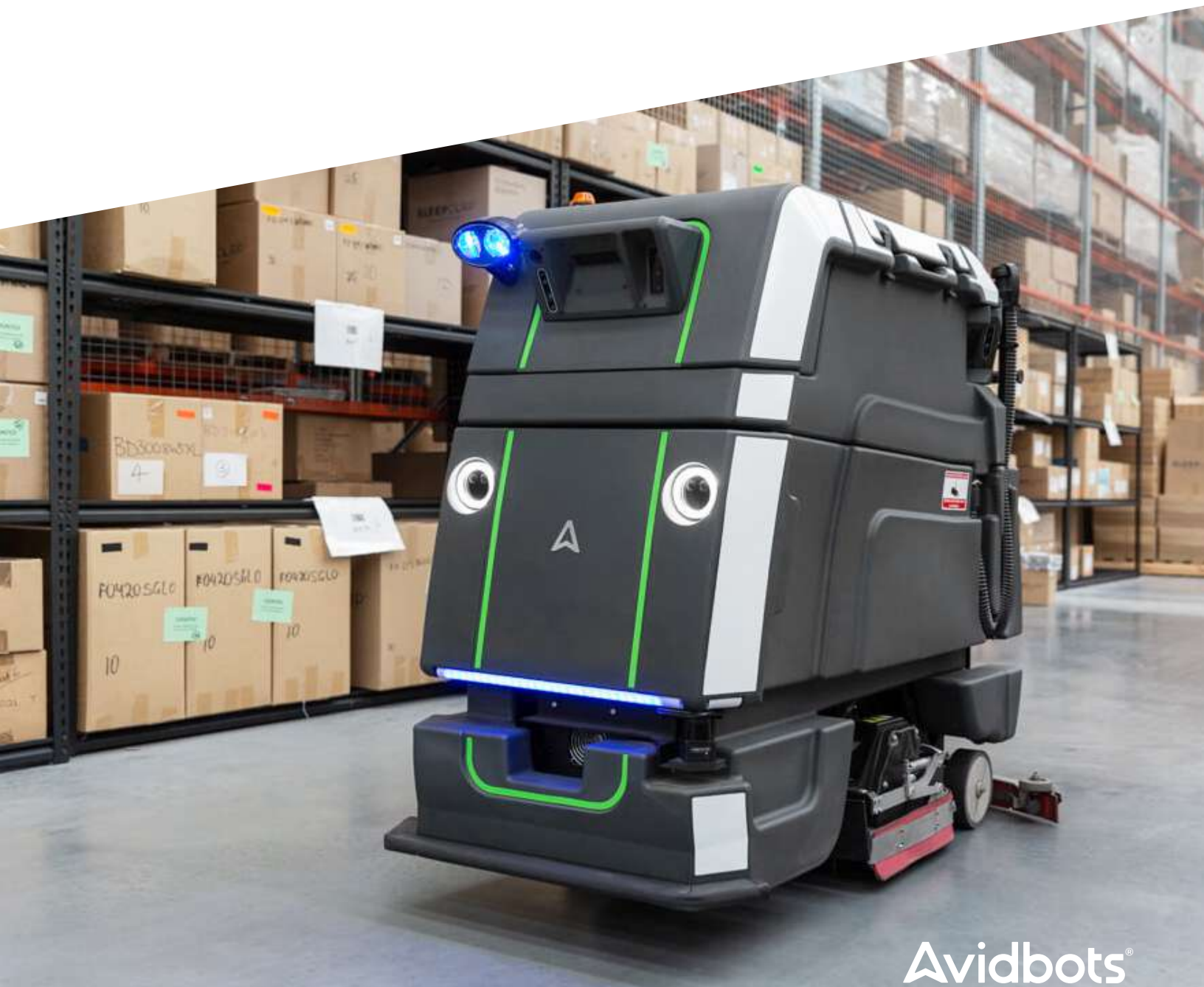


Neo™ for manufacturing

CUSTOMER STORY

Avidbots®

SLEEP CORP®



Avidbots®

‘When you’re sleeping well, you’re living well’

We can all relate to these words. There’s no better feeling than waking up rested and refreshed. But for Sleep Corp®, a leading Australian provider of bedding products, this is more than just a sentiment on the value of a good night’s sleep: It’s their guiding principle.

From a wide selection of bedding products for the retail, healthcare and hospitality markets, including pillow and mattress protectors, pillows, sheets, bed pads and continence underwear, Sleep Corp® designs and manufactures solutions that not only help people fall asleep comfortably, but also promote healthy living. Or as Sleep Corp® aptly describes, “Supporting people to deal with life’s challenges by unlocking the power of sleep.”

Recognised by the National Asthma Council of Australia’s Sensitive Choice Program and the Eczema Foundation of Australasia, Sleep Corp’s® flagship range of Protect-A-Bed® Mattress and Pillow Protectors protect the sleeper against dust mites, which found in all homes are a common cause of asthma, allergies and eczema. They also protect one’s mattress from spills and stains that can result in the growth of mould and bacteria.

Ryland Joyce, Operations Manager at Sleep Corp®, explains how the Protect-A-Bed® and Buddies Healthcare range are certified as a Class 1 Medical Device by the Therapeutic Goods Administration (TGA). Sleep Corp® is also a proud partner of The National Disability Insurance Scheme (NDIS), an Australian government program that funds the costs associated with disabilities.

Not resting on their laurels: Improvement through innovation

Continuous innovation is a key factor of Sleep Corp’s® business, encouraging them to always look to the future. Specifically, how the next wave of smart and efficient technologies can improve their warehousing and manufacturing operations.

“Technology and innovation are at the heart of everything we do. It helps us set new quality benchmarks that both please our customers and expand our business,” says Joyce.

In 2019 Sleep Corp® partnered with the Innovative Manufacturing CRC (IMCRC), a not-for-profit, independent cooperative research center, and Melbourne’s Swinburne University of Technology. The goal was to analyze ways they could modernize their operations for future success.

Industry 4.0 technologies, such as robotics, artificial intelligence, machine learning and cloud computing, were at the center of Sleep Corp’s® ambitious plans. These modern-day breakthroughs allow businesses to be flexible, adaptable and responsive.

“Australia has some of the highest costs of living, some of the highest wages and some of the highest water and electricity prices in the world,” begins Joyce on the importance of technology in manufacturing. “So, for us to maintain that Australian element that’s synonymous with quality, we must focus on how we make our product, being specific and strategic with where we use people. Our focus is on keeping people doing the highly skilled, high quality control tasks while leaving the mundane and repetitive tasks to automation.”



Product quality and cleanliness: A reflection of each other

Look no further than Sleep Corp's® most popular product for an example of the relationship between quality and cleanliness. Their line of mattress protectors is their "hero product" according to Joyce, producing thousands per day.

Sleep Corp® is able to scale production to these levels thanks to automation. At the same time, it has also emphasized the role cleanliness plays in meeting quality benchmarks.

"We sell a white product, and it's going on your bed. There's no margin for error. It must look and feel perfect," explains Joyce on the role cleanliness plays in high quality control.

There's also the Australian-made part of the equation, with a reputation for quality both locally and abroad that Sleep Corp® is keen to maintain. It's "one of the key pieces of our business" according to Joyce, and a clean facility plays a decisive role in meeting those standards.

Lofty standards demand first-rate cleaning solutions

Sleep Corp's® seamsters expertly cut, stitch and sew bedding products to exacting standards. This highly skilled group performs intricate tasks while robotics and automation manage the other steps of the manufacturing process. It's a production method that strikes the ideal balance between efficiency and quality, a workflow Sleep Corp® were eager to replicate elsewhere.

So, when moving into their brand new 8,000 square meter (86,112 sq ft) warehousing and manufacturing facility, cleaning automation was a logical step. Once again, the goal was to let technology do the repetitive and monotonous work, reallocating human labor to value-added tasks.

"It was looking at buying a piece of equipment and finding a staff member to operate it, or just buy the piece of equipment and go," recalls Joyce on the decision to go with a fully autonomous solution. "Therefore, there was less of a barrier, with no need to replace or reskill staff."

Although Sleep Corp's® cleanliness standards were already excellent, maintaining them was an arduous process before Neo.

"Before Neo we were in a 2,500 square meter (26,910 sq ft) warehouse. As a 20-year-old building, we had outgrown the space, even leasing out the building next door. As you can imagine, an older building was not the ideal environment," Joyce explains of their previous location.

"We swept floors constantly, but it was a time-consuming process. We were doing everything we could, wiping lots of surfaces and objects across the facility. Therefore, we had to focus every day on making sure everything was spotless. It was a massive undertaking."



Enter Neo: Sleep Corp's® cleanliness dreams become reality

Sleep Corp's® experiences with manual cleaning motivated them to search for a smarter and more efficient option. This new solution would also need to overcome the cleaning challenges inherent to Sleep Corp's® manufacturing process. As Joyce points out:

“One of the biggest cleaning challenges we have is sewing produces a lot of fine particle dust and loose thread. You're cutting tiny little pieces, snipping the ends, stitching threads and sealing that off. You're left with tiny loose bits of fluff and thread floating around in the air. So, lots of thread and fabric dust coming off machinery.”

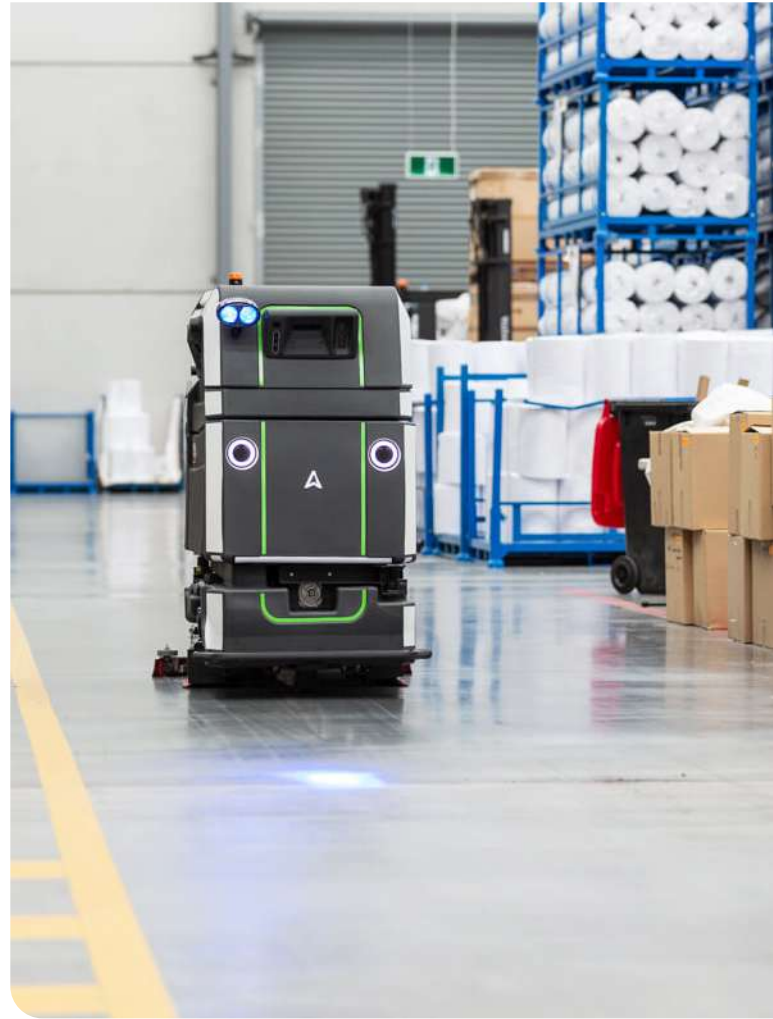
Costly downtime was also top of mind as Sleep Corp® searched the market for reliable and cost-effective alternatives.

“I started looking at manual cleaning equipment,” recalls Joyce. “But we try to be specific with the equipment we source and find high quality options. I don't want to use something that will break. We have a good understanding of that cost-benefit analysis.”

Despite Neo turning their heads with its impressive features, Sleep Corp® still had doubts. But as Joyce points out, these were short-lived.

“We weren't entirely confident a floor scrubbing robot could handle the thread and fabric dust and not cause problems to the brushes,” Joyce explains of the difficult conditions in their facility.

“But Avidbots set clear expectations, even getting a test robot in. We were able to do test runs under realistic operating conditions. Neo performed exceptionally across all areas of our facility.”



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Onboarding Neo

The pre-deployment process is a crucial first step when introducing Neo into a new environment. From generating highly detailed cleaning plans to teaching personnel common operating procedures, a thorough pre-deployment process gives everyone a huge head start.

Avidbots and Sleep Corp® worked side-by-side to integrate Neo within their operations. Since Sleep Corp's® facility includes warehousing and manufacturing in one building, Neo's customizable cleaning settings were valuable. For example, the ability to define slow-down zones and no-go zones on the cleaning maps guaranteed safety was always top-of-mind.

"The facility mapping and training went smoothly, taking around a day to complete," Joyce describes Avidbots' pre-deployment process. "Avidbots were invested in our success from the get-go, familiarizing everyone with the robot. The machine is easy to use, and the deployment was a simple process."

Together onsite, Avidbots and Sleep Corp® successfully mapped the entire facility without any hiccups. The onboarding process was so comprehensive that when it came time to updating the cleaning plans, a solid foundation was already in place.

"We've added new zones and had areas that were not able to be cleaned at the beginning because we were still building our warehouse," explains Joyce. "But adding those zones back in once the renovations were complete was easy. That flexibility and ease of use is one reason we decided to automate floor care, and Neo consistently delivers."

Neo onboarding includes:



On-site mapping of areas of floor to be scrubbed and surfaces to be disinfected.



On-site training with modules tailored for custodial staff and supervisors — covering hardware, software, Avidbots Command Center and maintenance.



Creation of customized cleaning plans optimized for maximum productivity while minimizing human intervention.

Waking up on the right side of bed: Neo raises the bar

Sleep Corp® deployed Neo at their Melbourne location in January 2022. This new, larger facility combines manufacturing and warehousing under one roof. All told, 8,000 square meters (86,112 sq ft) of bustling space, and Neo's responsible for cleaning all of it.

Despite the variety of traffic within this environment, Neo has never missed a step, learning and adapting on the fly. Indeed, Sleep Corp® values Neo's intelligence because their production process must incorporate updates and changes seamlessly and efficiently.

When these updates and alterations happen, floor plans may change, with new objects or traffic patterns emerging. But thanks to Avidbots Autonomy, Neo takes these changes in stride, allowing Sleep Corp® to focus on their business while Neo cleans the floors.

"Neo's adaptability is important in a facility like ours," begins Joyce on Avidbots Autonomy's dynamic path planning capabilities. "On any given day, we may have a pallet, crate or any number of other objects in different places than usual. And when we create new products or modify existing ones, new workflows may also appear. Not needing to constantly retrain Neo saves us time and resources, as well as providing reassurance that our facility will stay clean regardless of any alterations we make."

The value Neo delivers each month...

Manufacturing facilities can see several measurable cost savings that indicate a Neo robotic floor scrubber can easily pay for itself within 12 to 18 months of purchase.

25k+
sq m

(275k+ sq ft)
autonomously
cleaned each month

30+
hrs

cleaning labor hours
reallocated to revenue
generating activities

Improvement through data

As believers in data and the potential it unlocks, Avidbots Command Center has proven an invaluable tool for Sleep Corp’s® team. Already tracking numerous data points across their production process, Neo’s cleaning analytics are having a similar transformative effect.

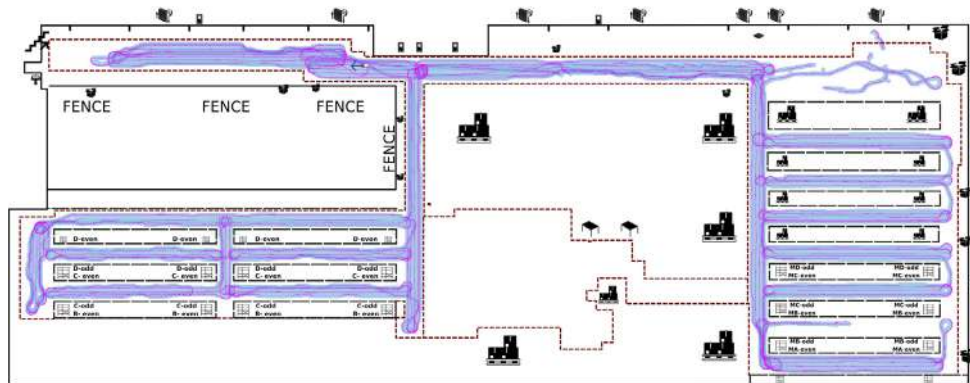
Sleep Corp® is able to closely follow Neo across their facility thanks to Avidbots Command Center. The user-friendly, always updating web app allows Sleep Corp® staff to monitor, manage and measure cleanliness levels across their entire facility.

Command Center has also proven an important management tool, with customizable reports and notifications providing reassurance and peace of mind. Real-Time Monitoring, which delivers live updates and video on the status and location of Neo, is also helpful. As Ryland Joyce, Operations Manager, explains:

“Sometimes I jump on Command Center on my phone at night and watch Neo clean. It’s a great piece of equipment and a great tool.”

“The value for me is in not having to look at it, yet I know Neo is doing its job,” continues Joyce on the visibility and accountability Command Center provides. “The fact that I know that it’s happening, that I can set it and forget, and occasionally jump in there to double check everything is working or add a zone. That’s why I really like it. The best-case scenario for me is to not have to hear about it or deal with it.”

Neo is currently cleaning over 25k+ square meters (269,098+ sq ft) per month with 87 percent coverage, helping Sleep Corp® save over 500 cleaning labor hours to date. Even more exciting is knowing that Neo and Command Center’s impressive performance is just a glimpse of bigger — and cleaner — things to come.



Details

Location:	SleepCorp Dandenong South
Plan Type:	Cleaning
Plan:	FULL MAP
User:	Carlo
Robot:	Neo 2068555
Features and Add-Ons:	None
Start Time:	Mar 8, 2023 - 11:42:56 PM America/Toronto
End Time:	Mar 9, 2023 - 2:32:19 AM America/Toronto

Metrics

Total Area:	2,824 m ²
Total Time:	2 h 49 min 23 sec
Productivity	1,003.64 m ² /hr

Additional Details

Plan Area:	3,054.84 m ²
Total Cleanable Area:	1,303.31 m ²
True Covered Area:	1,180.54 m ²
Coverage Percentage:	90.5796 %
True Performance:	451.46 m ² /hr
Final Result:	Success
Water Usage:	18.80 US gallons
Water Flow Mode:	Medium (Cleaning plan default is Low)
Brush Pressure:	Low
Vacuum Setting:	On

More than a transaction: Building meaningful customer relationships

Sleep Corp's® experiences with Neo have reaffirmed their beliefs in robotics and automation.

Their model of complementing a talented workforce with technology shines a light on the future of manufacturing in Australia. But while technology often steals the headlines, in the end, it's all about relationships.

"The relationship-building and the fact that it's not just a drop-and-run transaction. Avidbots sometimes spends more time looking at Command Center than I do!" enthuses Joyce on Avidbots' customer service.

"There's no obligation for Avidbots to continue to reach out, engage and make sure everything is working, but it's done anyway. The real surprise to me was the continued care and commitment to see an outcome and following up and delivering on that."



A cleaner present, a brighter future

Neo and Sleep Corp® are lifting each other higher.

For Sleep Corp®, they have a cleaner facility that's easier to maintain. For Avidbots, they have a valued customer whose operating model speaks directly to their mantra of maximizing human potential through robotics and automation.



And for both, each is proud that their commitment to clean is now a virtue in the public's eyes.

"There's a big strip in the front of our warehouse where forklifts drive back and forth. It's a sort of highway zone. My favorite thing to do is have customers come in or have a site tour, and I start at that line and tell them to look down the facility," says Joyce.

"That's how I know that we're successful and that we're happy with how this business is operating. It's a real wow factor. We have polished floors, and everything is shiny and clean. It's easy to tell the whole building is well maintained, and that's a huge selling point because people walk away thinking, 'These guys really know what they're doing.'"

As Sleep Corp's® ambitions push them to explore new and exciting horizons, Avidbots and Neo will be by their side every step of the way, ensuring that the journey is clean, consistent and measurable. After all, a cleaner future is a brighter future, and Sleep Corp's® is sparkling.

Why Avidbots?

Buying an Avidbots Neo isn't just buying a floor scrubber. It's investing in a technological future that can redefine your cleaning function, making it more productive, more cost effective and easier to run. More importantly, our robotics and AI technology open up new opportunities to make your business even more successful. We realize this isn't just about buying a product, or a technology, or even a business proposition. You want to buy into a trusted partner who can take you into the future of automated operations using cutting edge robotics. At Avidbots, we work side-by-side with our customers to earn that trust and realize all the benefits that robotics can bring them.



About us

Avidbots is a robotics company with a vision to make robots ubiquitous to unlock humanity's potential with a hyperfocus on autonomous cleaning. Our groundbreaking product, the Neo fully autonomous floor scrubbing robot, is deployed around the world and trusted by leading facilities and building service companies. Headquartered in Kitchener, ON, Canada, Avidbots is offering comprehensive service and support to customers on 5 continents.

Contact us

Learn more about Neo.



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CS-SC-03152023

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