

Robots for labor-intensive jobs











HUMBLE BEGINNINGS

FROM DORM ROOM

TO BOARDROOM

Andrew Ashur CEO & Founder aashur@lucidbots.com









Vision

To uplift humanity by building the world's most productive and responsible robots.

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Customer-Driven We win when our customers win. Safety and Quality

Simply put: safety and quality above all else

1F

Growth

We are committed to constantly learning, growing, and looking for new opportunities.







Humility Humility is wisdom, courage, and strength.

Teamwork We only achieve what we do by working together.

200% Annual turnover rate in the cleaning industry

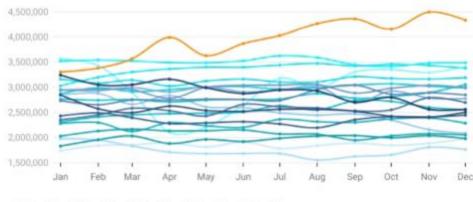
Since 1990, the cost of employee labor has risen by over 200%. Meanwhile, the cost of robots has dropped by over 50%.



No one wants to do dull, dirty, and dangerous jobs.

Quitter's Market

Many factors have led to the historic quits levels — the ongoing pandemic, new vaccine mandates and a strong candidate's market are just some considerations that may be leading more workers to put in their notice. The last nine reported months (April through December) have seen the largest exodus of employees on record.



- 2001 - 2002 - 2003 - 2004 - 2005 - 2006 - 2007 - 2008 - 2009 - 2010 - 2011 - 2012 - 2013 - 2014 - 2015 - 2016 - 2017 - 2018 - 2019 - 2020 - 2021

2020 Labor Stats

62,076 Nonfatal Cleaning Cases for Days Away From Work

645

Fatalities from Workers Falling to a Lower Level

Fatalities in Building Cleaning Services

X

Note: December 2021 data is preliminar

Chart: Mauro Whiteman | Source: Bureau of Labor Statistics, Job Openings and Labor Turnover Survey, December 2021 | Created with Datawrapper

The industry relies on ancient tools and manual labor.



"Window Washer Killed in East Village Was Months Away From Welcoming Baby"

JANUARY 27, 2022



INDUSTRY TRENDS

Property managers are searching for ways to:

- Reduce costs
- Increase safety, Limit liability & risk
- Tackle regulatory restrictions/issues
- Limit the number of vendors
- Improve the quality & consistency of work or vendor

Service providers are dealing with:

- Rising costs
- Labor issues, shortage & retention
- Safety concerns
- Need for increased revenue
- Need for diversification



Lucid Bots Value Prop - Solving Customers Needs

- Offer high tech products designed for a low tech world
- Make products easy to operate and implement into any business
- Solve the labor issues Shortage, attraction and retention
- Provide products that produce a high quality & consistent clean
- Allow our users to do more jobs, in less time with lower liability
- Give our customers the ability to reduce costs, drive greater revenue and expand their offerings





USE CASES FOR ALL PROPERTIES

Roofs



Residential and Commercial

BILTMORE INN

HOTEL

Windows & Glass



Commercial Real Estate, Hospitals, Universities, Specialty Projects

WINDOW CLEANING





Hotels, Churches, Apartment Buildings, Office buildings, Sports Facilities, Universities

CAJUN DOME

Specialty



Water Towers, Church steeples, Oil & Ammonia Tanks, Golf Courses

WATER TOWER

The Sherpa Drone is the perfect tool for any elevated cleaning or spraying application in any industry across a variety of property types.

FEATURES

The Lucid SHERPA Drone is loaded with features that not only make it easy to fly, but extremely safe for operators. Some of them include:





WINDOW WASHING Payload

Window Wash Payload Features

- Wash And Rinse On Demand Safely From The Ground.
- On-board Chemical Tank With Variable Mix Ratio.
- Point Of Use Mixing, No Need To Purge The Water Supply House.
- Use "Lucid Clear" Window Wash Or Use Your Own.
- Rapid Return On Investment. More Jobs In Less Time.

The on-board chemical tank allows you to mix your choice of cleaning solution or use our preferred *Lucid Clear* window wash for a touch-less, streakfree, spot-free shine.*

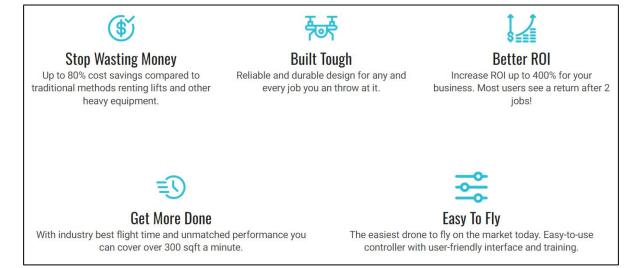


"Using a Lucid Drone made an unbelievable difference! This job could not have been done without this drone. Even if we could have used a lift, we would have never gotten it done in the same amount of time."

- S. Baker The Inn At Biltmore Hotel

Window Washing Insights

"Window washing technology, like drones, can help with recruitment, tackling perceptions of intense labor and appealing to younger demographics. Refined processes that tackle cost and resource consumption help business combat increasing inflationary costs while also practicing sustainability in their operations. A key lookout for many customers." - From Interclean article written in January 2023









Drone Cleaning – Windows







Window Cleaning for 1331 Maryland Luxury Apartments

ORDE OTOD

CHALLENGES

1331 Maryland is a magnificent apartment building that boasts breathtaking views of the Washington Monument. The building's unique architectural features presented several challenges:

- 1. False Balconies and Rooftop Living Space: The presence of false balconies and a rooftop living space made it difficult to access and clean the exterior of the building effectively.
- Tight Alleyways and Sidewalks: The tight alleyways and sidewalks surrounding the building made it nearly impossible to set up lifts or scaffolding for traditional window cleaning methods.
- 3. Tenant and Pedestrian Safety: Ensuring the safety of tenants and pedestrians was a top priority, and traditional cleaning methods often disrupted or posed potential dangers to them.
- 4. Sustainability and Longevity: Even when windows were cleaned by hand in the past, they would quickly accumulate dirt and spots, diminishing the appearance of the building.

SOLUTION

Recognizing the need for an innovative and efficient solution, the facility manager at 1331 Maryland sought assistance from VSI Aerial. Geoff and Gretchen of VSI Aerial saw an opportunity to revolutionize the window cleaning process by utilizing drones, despite the challenges posed by the restricted airspace due to the proximity to Washington D.C.



RESULTS

The application of VSI Aerial's innovative solution resulted in remarkable outcomes. In just 20 minutes, windows that were previously marred by various contaminants were transformed into crystal-clear surfaces. The Lucid Bots drone, equipped with its Window Cleaning Payload, effectively addressed the unique challenges presented by the 1331 Maryland luxury apartment building, providing a safe, efficient, and sustainable solution for window cleaning.

TESTIMONIAL

We did two demos for this job, and the responses were overwhelmingly great. After three weeks, they had their team spray the windows, trying to make them dirty, and the windows still looked great, thanks to our cleaning process.

Geoffery Green, CEO VSI Aerial



"We always know we're backed by their support, their support is excellent... It provides us with a very competitive edge."

- E. King, King Cleaning

Customer Success: We Win When Our customers Win

- Online or On-site training available
- Dedicated account manager
- Annual Maintenance Programs available
- In House Everything (repairs, parts, new builds)





DON'T CHANGE, ENHANCE.

Effortlessly integrate the Sherpa Drone with any existing soft-wash pump system, accommodating up to 11gpm at 300 psi.



EASY TO FLY ANYONE CAN FLY OUR DRONE.

Drone training? That's no sweat! With Sherpa Drone, you'll be a pro in less than a day. Say goodbye to complications; we keep it simple, empowering you to be the best in no time.





Focus on what matters; we built our Sherpa Drone to handle the most brutal stuff you can throw at it: waterproof construction, rugged build, and replaceable parts.







New Revenue Streams From:

- Subscription based model
- Flex schedule program
- Job Diversification
- Specialty Jobs

UTILIZING TECHNOLOGY FOR GROWTH & EXPANSION

DRONE TECHNOLOGY SAVES BOTH TIME & MONEY

	Lift	Drone	Change
Time Period	5 Days	1 Day	+4 Days
Revenue	\$12,000	\$12,000	0% Change
Equipment	\$(5,783)*	\$(100)	+98.3% Savings
Labor	\$(1,200)	\$(240)	+80.0% Savings
Chemicals	\$(2,400)	\$(1,800)	+25.0% Savings
Workers Comp	\$(90)	\$(8.40)	+90.7% Savings
Profit	\$2,527	\$9,652	+392%

*Results Based On An Exterior Cleaning Job For An 8 Story Building *120' lift cost + 15% insurance cost + ~\$1,200 for equipment transportation



University of North Carolina at Charlotte (UNCC)

CASE STUDY

CHALLENGES

UNCC had several key challenges:

- Damage Avoidance: UNCC wanted an exterior cleaning solution that would not damage the landscaping and buildings around the Miltmore Hall, a concern commonly associated with the use of large lifts.
- Cost and Time Efficiency: The traditional approach of renting a large lift for the Miltmore Hall would be both costly and time-consuming. UNCC aimed to find a more efficient and cost-effective solution.
- Lasting Results: UNCC sought a solution that would provide lasting results, particularly in window cleaning, which often requires frequent maintenance due to the climate and environmental conditions from surrounding trees.

SOLUTION

UNCC chose to partner with Lucid Bots to address their unique challenges. Lucid Bots proposed the use of their innovative Sherpa Drone for exterior cleaning and window washing, combined with their proprietary Lucid Clear window cleaning chemical for enhanced results.



RESULTS

The results of UNCC's collaboration with Lucid Bots were nothing short of remarkable. The Miltmore Hall's exterior, especially its windows, saw a significant transformation:

- **Cost Savings:** By opting for the Sherpa Drone and Lucid Clear window cleaning chemical, UNCC saved a substantial amount of money compared to renting a large lift, which would have been both expensive and labor-intensive.
- **Time Efficiency:** The drone's efficiency reduced the project's duration to just a few days, allowing for minimal disruption to the building's occupants.
- Lasting Results: The application of Lucid Clear chemical ensured that the cleaned windows remained clear and clean for an extended period, reducing the frequency of maintenance.

TESTIMONIAL

One UNCC facilities staff member expressed their satisfaction with the results, stating, "I just came from Miltimore, and we both agree that the building is a 100% improvement!"



BEFORE & AFTER



Drone Cleaning – Industrial Tank







LAVO BOT: INTELLIGENT SURFACE CLEANING FOR THE 21ST CENTURY

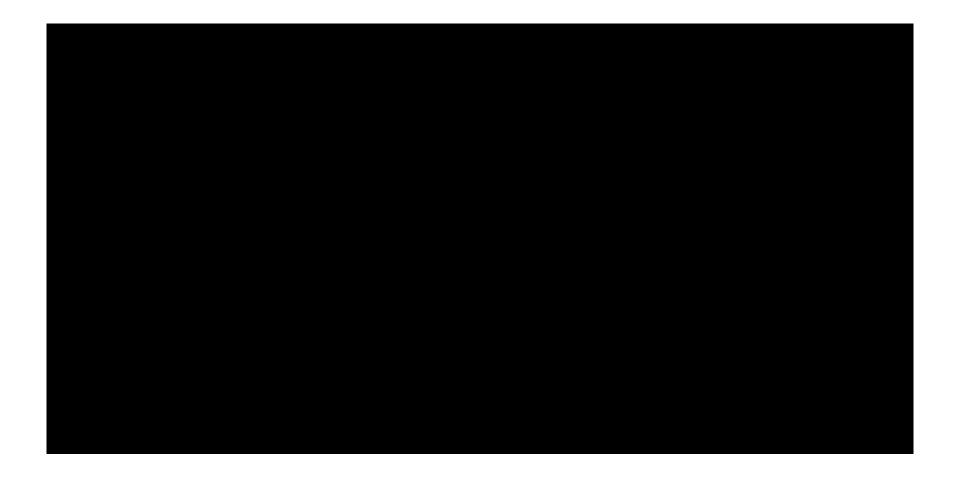
Revolutionize the pressure-washing industry with Lavo Bot, our groundbreaking surface-cleaning rover!

Protect your workers' health and attract top talent with our innovative robotic solution.

Experience endless possibilities with Lavo Bot, setting a new standard in power-washing technology.

- PSI Limits: Up to 4000 PSI
- Up To 8 GPM
- 24" Deck Size
- 2.5+ hour run time





LavoBot – The Ultimate Surface Cleaning Robot



Driveways



Parking Garages/Ramps



Gas Stations



Stadiums & More!



Lavo Bot... The Future of Surface Cleaning



ENHANCED EFFICIENCY FOR **COMPLETING JOBS 70% FASTER**

EASY-TO-USE AND LIGHTWEIGHT DESIGN FOR PORTABILITY

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LONG-LASTING BATTERY WITH OVER 3 HOURS OF RUN TIME







CONSISTENT ENDURANCE AND QUALITY THROUGHOUT THE DAY

STAY AHEAD OF COMPETITORS WITH ADVANCED TECHNOLOGY



Lucid Bots Strategic Partners



