



# Neo 2.0: The Future of Cleaning

# Avidbots

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Proprietary & Confidential



**Avidbots Neo is the only truly autonomous floor cleaning and disinfection solution with the lowest cost of ownership.**





# Meet Neo 2.0

## Overview:

A fully autonomous floor scrubbing robot capable of navigation through complex and variable environments.

## Technical Specs:

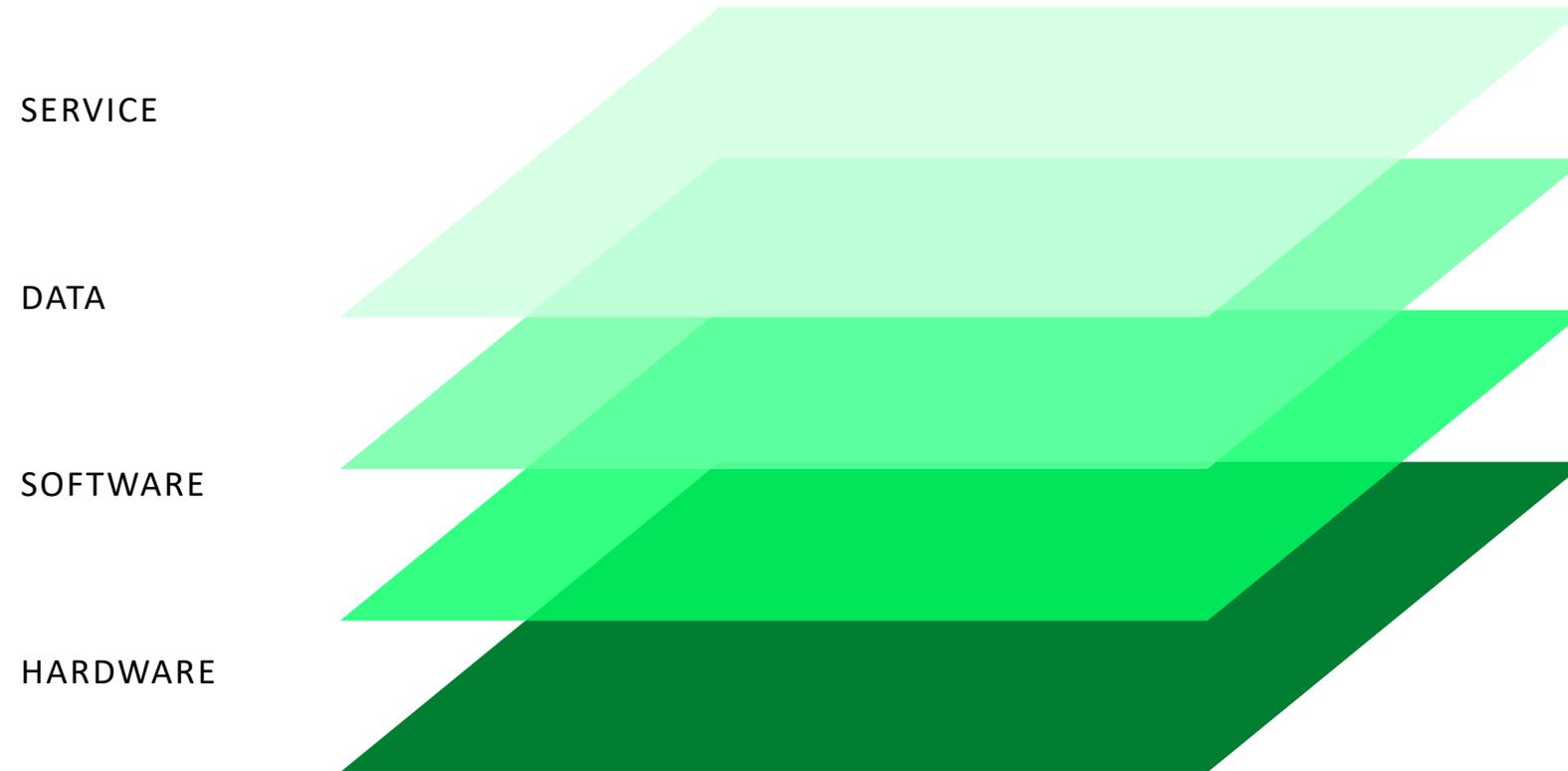
- ▶ Full 360° laser sensor visibility
- ▶ Front and side hybrid 3-D sensing and redundancy (7 x 3-D sensors, two technologies, 3m range)
- ▶ Dynamic path planning and obstacle avoidance
- ▶ Simultaneous Localization and Mapping (SLAM) accurate to within 5cm

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- ▶ 4-6 hour run time
  - ▶ WiFi + 4G cellular connectivity
  - ▶ Software + Hardware redundant safety
  - ▶ Absorbent Glass Mat (AGM) Battery



# The Avidbots Advantage:

Full-stack integration delivers true Artificial Intelligence (AI).



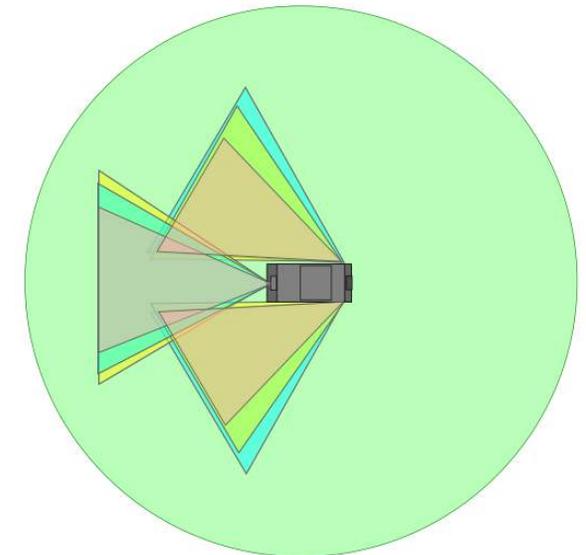
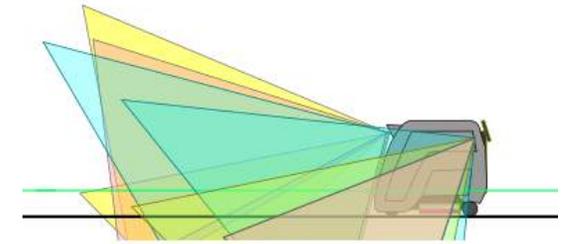


# Lowest Total Cost of Ownership

Do more for less, win the battle against labor challenges

- ▶ Avidbots AI Platform
  - ▶ Dynamic path planning
  - ▶ Obstacle avoidance
  - ▶ SLAM accurate to within 5cm
- ▶ Full 360° laser sensor visibility – no blind spots
- ▶ Front and side hybrid 3D sensing and redundancy  
(7 x 3D sensors, 2 technologies, 3m range)
- ▶ Advanced diagnostics
- ▶ 4-6 battery life
- ▶ Reduces labor costs and the impact of labor issues

Neo leads the industry:  
14 sensors, 360° field of view





# Consistent and Quality Floor Cleaning

Eliminate human variability, meet high industry expectations

- ▶ Avidbots AI Platform enables Neo to deliver a superior and consistent clean with plans that:
  - ▶ Ensure consistent coverage
  - ▶ Dynamically update
  - ▶ Can be optimized according to seasonal changes
- ▶ Active Cleaning Controls
- ▶ Most cleaning heads in the industry including a 32" disc
- ▶ Separate clean + dirty water tanks
- ▶ High-performance squeegee system
- ▶ Compatible with industry-leading brands for cleaning pads and brushes
- ▶ Cylindrical brush cleaning head options (Q4 2020 for Neo 2.0)
- ▶ Side sweeper add-on (Q4 2020)



# Avidbots Command Center Software: The power of data to disrupt & transform cleaning

- ▶ Monitor and manage your fleet of Avidbots Neo robots in real time
- ▶ Intuitive, browser-based, cloud-native software and analytics

The screenshot displays the Avidbots Command Center Software interface, which is divided into several key sections:

- Robot Monitor (Bottom Left):** Shows a top-down view of a robot's path on a floor plan. The robot is represented by a colorful icon, and its path is shown as a series of colored lines. A red dashed box highlights a specific area. Below the map are three camera feeds labeled 'front', 'door', and 'back', providing a first-person perspective of the robot's environment.
- Summary Dashboard (Top Center):** Features three line graphs showing performance metrics over a month (July 2017 to July 2018):
  - Area Cleaned (sq ft):** Shows a steady increase in cleaning area over time.
  - Task Performance (sq ft/hr):** Shows a peak in performance around mid-month.
  - Total Time (Percent):** Shows a peak in total time spent around mid-month.
- Cleaning Reports (Top Right):** Displays a floor plan with a grid overlay (A-I, 1-4). A blue shaded area indicates the cleaning path. A legend below the map shows 'Coverage Area' and 'Extra'.
- Cleaning Details (Bottom Right):** Provides specific data for a cleaning task:
  - Location:** DM, USA - Dressing Tm Parls
  - Cleaning Plan:** DM-0000417 THE PERKS - 01
  - User:** Javi Garcia Delgado
  - Robot:** Neo 010017
  - Start Time:** Jul 5, 2019 - 10:54:00 AM America/Toronto
  - End Time:** Jul 5, 2019 - 12:18:15 PM America/Toronto
- Metrics (Bottom Right):** Lists key performance indicators:
  - Total Area: 1,187 sq ft
  - Total Time: 1 h 21 min 12 sec
  - Productivity: 200 sq ft/hr
  - Cleaning Plan Area: 1,187 sq ft
  - Total Operable Area: 474 sq ft
  - Task Cleaned Area: 451 sq ft
  - Task Performance: 488.42 sq ft/hr
  - Final Result: ✓ Success
  - Water Usage: 19.62 liter



# Aidbots Command Center

## Fleet Performance Visibility, Tracking and Management

- ▶ Generates the data needed to see if you are meeting runtime, productivity and coverage goals to achieve your target ROI.
- ▶ Ensures consistent cleaning and disinfection with reports that prove it.
  - ▶ Site performance against goals and trends over time
  - ▶ Detailed coverage and productivity report for each time the robot cleans
  - ▶ Daily / weekly fleet reports
  - ▶ Live monitoring of all robots



# Neo 2.0

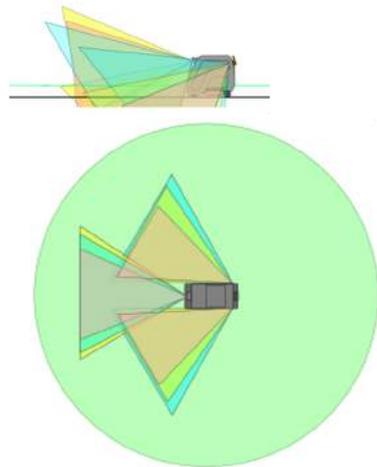
# Why Use Neo 2.0?

- ▶ Reduces labor costs
- ▶ Best-in-class cleaning coverage (90%)
- ▶ Best-in-class cleaning productivity
- ▶ Superior cleaning with advanced Active Cleaning technology; helps with dust mitigation
- ▶ Increased visibility with detailed, auditable reports
- ▶ Decreased exposure to workforce issues (e.g. turnover)
- ▶ Purpose-built robot increases safety with technology
- ▶ Enhanced your brand image and visibility on cleaning ops





# Greater Visibility = Greater Awareness



Neo 2.0



Feature	Neo 2.0
2-D Laser	Full 360°
3-D Obstacle Sensing	3-D Hybrid Redundant
3-D Sensing Coverage	Full Robot Motion

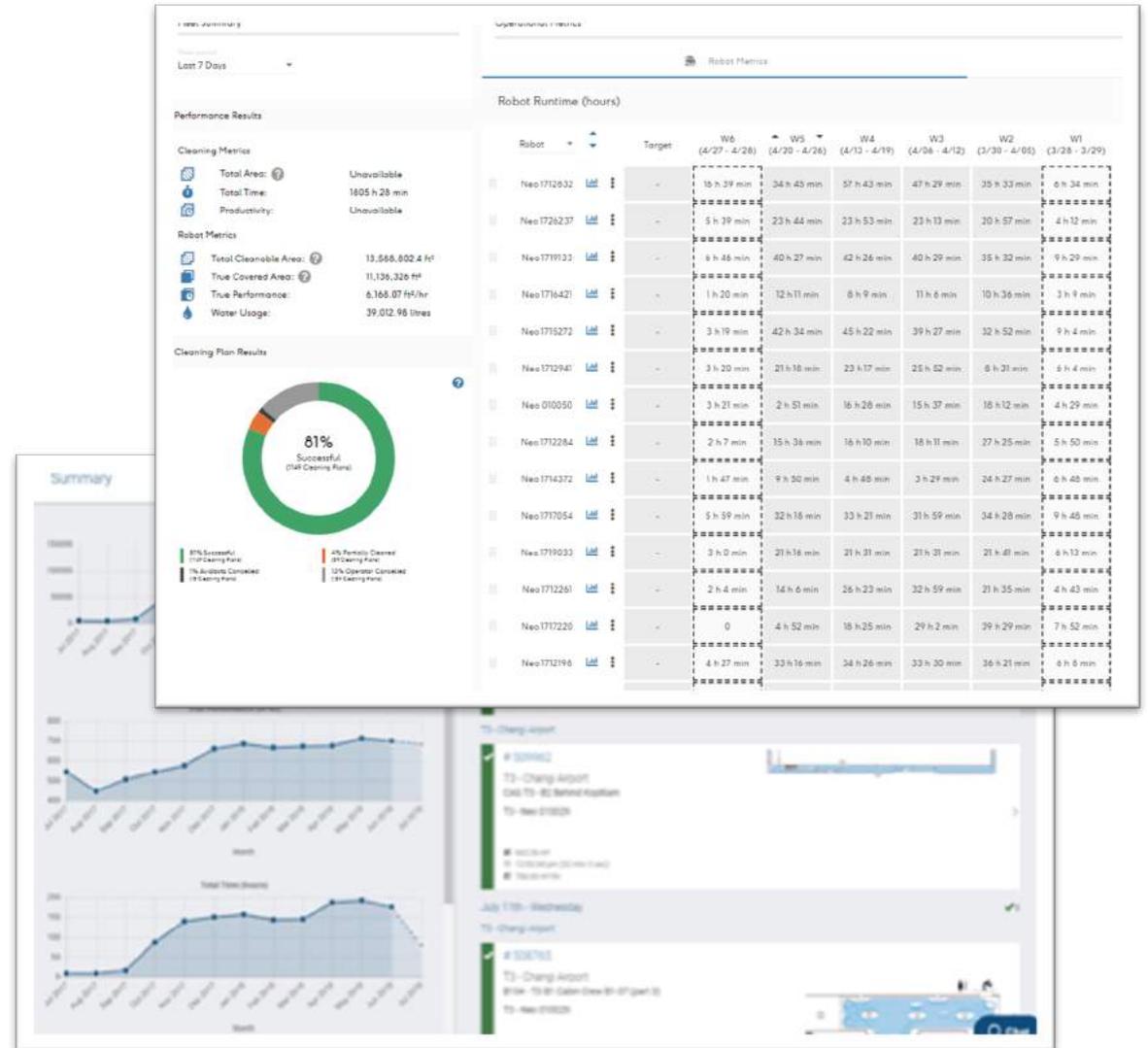


# Reporting & Metrics



## Aidbots: Proprietary Command Center Platform

- ▶ ROI Tracking and Fleet Dashboard tools
- ▶ Live Monitoring: Monitor and manage your fleet of Aidbots Neo robots in real time
- ▶ Reporting: Individual Cleaning Plan Reports and Performance-over-time Reports
- ▶ Software Updates & Tech Support included
- ▶ Fleet insight and analysis tools





# Neo 2.0 for Transit | Real-World Examples

Category	Challenge	Neo 2.0 Solution
<b>Dynamic Environment</b>	There are lots of people and items on the move in a transit hub – need a robot that can navigate this difficult environment.	Neo 2.0 has the most complete sensor system out there, featuring 360° coverage which means it sees all its surroundings – it moves safely and will not hit any people/obstacles – this keeps its productivity high.
<b>Cleaning Path</b>	Transit hubs are always changing – you need a robot that plans dynamically and redesigns its paths as the environment changes – a robot repeating a path will get stuck.	Neo 2.0 operates with dynamic planning.
	Robot gets stuck when a path is blocked in a complex area.	Neo 2.0 knows the entire transit hub area – so it plans dynamically and intelligently – even when its not easy to.



# Why Neo 2.0?



Aidbots Advantage	Business Impact
Neo 2.0 can <b>cover more square feet per hour</b>	Better <b>productivity value per clean</b>
Neo 2.0 has a <b>higher brush pad RPM</b>	Delivering a <b>better, more efficient, clean</b>
Neo 2.0 <b>operates using Artificial Intelligence</b>	<b>Saves operators' time from by reducing intervention</b>
Neo 2.0 has <b>14 sensors and has 360° visibility</b>	<b>No blind spots</b> means Neo can operate in more environments
Neo 2.0 has <b>Aidbots Command Center</b>	<b>Real time, detailed visibility</b> into your fleet cleaning operations
Neo 2.0 is an <b>Expandable Robotic Platform</b>	Continuous <b>business value-add</b> through simple upgrades
Neo 2.0 has <b>24/7 remote monitoring</b>	<b>Preserving ROI</b> by reducing your employee time spent with robot

# Avidbots Neo

*Advanced robotics. Advanced cleaning.*

