# THE NEW ERA OF SMART CLEANING



PROTECTION FROM THE HIDDEN AND THE INVISIBLE





# The New Era of Smart Cleaning

#### Protection from the hidden and the invisible

The U.S. Centers for Disease Control and Prevention (CDC) emphasizes that regular cleaning and disinfection are crucial to minimize the transmission risk of infectious diseases. However, traditional manual cleaning protocols are labour intensive, costly, and often inadequate in providing consistent, effective protection against "hidden" allergens and "invisible" pathogens (viruses and bacteria).

Avalon SteriTech is partnering with SoftBank Robotics to develop innovative products and technologies in the field of cleaning and bio-decontamination, where bio-decontamination capabilities can now be integrated into **whiz**, the world-leading autonomous cleaning robot. The 2-in-1 robotic solution aims to complement existing protocols, resulting in enhanced cleaning productivity and efficacy.

#### Whiz GAMBIT is also a proud recipient of:

- Innovation Honoree at the CES 2022 Innovation Awards
- International Best in Business Awards by GLOBEE®, SILVER GLOBEE® WINNERS in Best Product | To Combat and Reduce the Impact of COVID-19
- Robotics Health Products & Services Award at Singapore Business Review Technology Excellence
   Awards 2021



# **Al-Powered Cleaning and Disinfection**Revolutionary Solution to Biosafety and Hygiene





## World-class AI Cleaning and Disinfection

- **Best-in-class** autonomous-driving Al for route design and obstacle avoidance
- Vacuum cleaning and disinfection 2-in-1



## Easy to Set Up, Easy to Use, Easy to Monitor

- **User friendly** OS allowing for route design and deployment
- Check route completion records to provide peace of mind



#### **Patented Spraying Technology**

- Advanced spraying mechanism to generate disinfectant in mist form
- High material and electronic equipment compatibility



#### 24/7 Accessibility and Reliability

- **Consistent performance** to prevent human error or spot-cleaning
- Optimize operations and workflow with less effort but a better result

#### **Product Features**

**User-Experience Driven** 

#### **EASY TO USE**

Powered by BrainOS, this product can be used straight out of the box.

#### SAFE AND RELIABLE

Automatically avoids people, obstacles (incl. glass panels), walls, cliffs, and other hazards.

#### REAL-TIME ALERTS

Notifications can be sent over-the-air whenever cleaning routes are completed, or it needs a hand.



#### MULTI-ANGLE COVERAGE

Ingeniously engineered nozzle can be adjusted to target zone, surface or ground bio-decontamination.

#### **RESPONSIBLE SPRAYING**

Precise control of particle size to achieve safe and effective performance while preventing excessive use of chemicals.

## INTEGRATED PRODUCT DESIGN

Cohesive design with Whiz allows for robust durability and seamless user experience.



### Performance Tested

- Onsite Microbial Reduction
  >99%

  Effectively inactivate
- >99.99% Coronavirus
- Effectively kill >99.99%



# Science Driven Approach to Environmental Hygiene Research Findings

# 80% decrease

in airborne microorganism in indoor environment. This is supported by the positive correlation between floor

cleanliness and air cleanliness.1

#### up to

99.9%

# microbial burden eliminated

conducted in SGS simulated environment with comprehensive sampling across ground, table and shelf heights.<sup>2</sup>

#### up to

5,400 sq ft coverage on a single charge

which is more than four and a half badminton courts.<sup>3</sup>

# 100%

#### **Autonomous**

powered by BrainOS®, the award-winning commercial robot operating system from Brain Corp., with easy user interface, route design and deployment.

#### eference.

- 1. SoftBank Robotics conducted research in Tokyo, JAPAN to evaluate the effectiveness of Whiz to clean office buildings. The study was conducted across 116 sites.
- 2. Tested by SGS. For details, please refer to SGS Performance Mark.
- $\textbf{3.} \ \mathsf{Disinfection} \ \mathsf{and} \ \mathsf{cleaning} \ \mathsf{time} \ \mathsf{is} \ \mathsf{dependent} \ \mathsf{on} \ \mathsf{route} \ \mathsf{design} \ \mathsf{for} \ \mathsf{Whiz} \ \mathsf{Gambit}.$

## Product Specification \*Specifications and/or design details may change without prior notice.



#### SoftBank Robotics Whiz

Dimension (mm)	474 (L) x 455 (W) x 653 (H)
Weight (excluding battery)	30 kg
Vacuum cleaning coverage	500 m <sup>2</sup> / hour
Continuous operation	3 hours (normal mode)
Battery charging time	4 hours
Max. speed	1.8 km/hour
Rated output	29.4 V/8 A x 2 slots
Safety features	LIDAR, 3D camera, impact sensor, anomaly detection



#### **Avalon SteriTech** G∧MBiT

Dimension(mm)	389 (L) X 456 (W) X 595 (H)
Max. pump pressure	3.5 bars
Tank volume	2.5 litres
Spray rate ^	2 litres / hour
Voltage	24 VDC
Noise ^	70 dBA
Battery type	Lithium
Gross weight	14.5 kg
Rated Output	296 W
Average running distance#	4,000 m
Operation time ^	100 mins
Charge time ^	160 mins

<sup>#</sup> Operation along with fully charged Whiz.

Whiz\_Gambit\_Brochure\_EN\_v1.2

<sup>^</sup> The specifications are subjected to +/-10% variation.