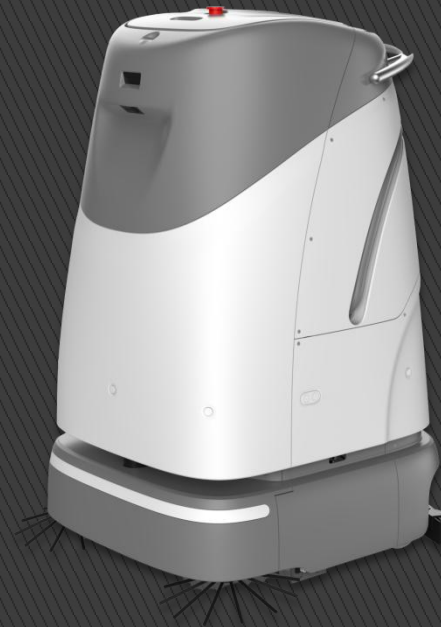


INTRODUCING

CC3



20-Inch Autonomous Floor Scrubber

20-Inch Autonomous Floor Scrubber

CC3



Say hello to heavy-duty cleaning

- The CC3 is an industrial-grade floor scrubbing robot for hard floors. Developed specifically for large facilities, the CC3 has both wet and dry cleaning modes for scrubbing and sweeping, and is ideal for most types of hard flooring like hardwood, marble, epoxy, concrete, stone, etc.
- Facilities can improve custodial efficiency and reduce costs by incorporating CC3 into their operations. CC3 takes the effort out of cleaning large areas of hard flooring, and addresses staffing challenges by tackling large scale cleaning without additional personnel.

Autonomous Cleaning is Cleaning Made Easier

Fully
automatic
Safe
autonomous
operation

Versatile use
cases

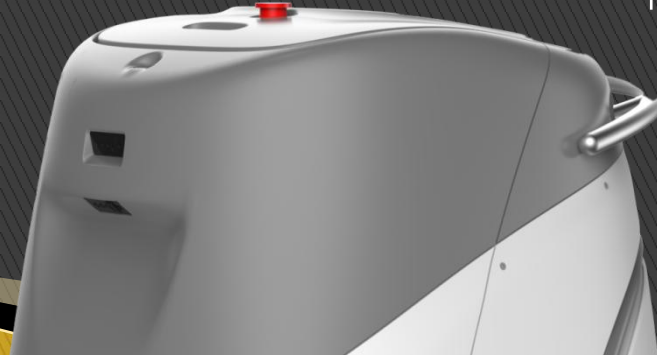
»
Long
battery
life, fast
charging

Sweeper
and
scrubber in
one
Edge
cleaning

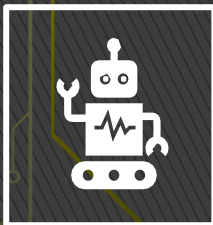
42L solution
tank
recycles
water

Easy
maintenance
and
affordable
parts

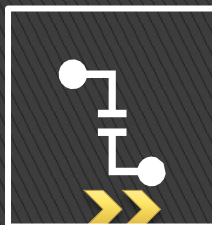
Cloud-based
monitoring,
In-depth
training and
responsive
customer
service



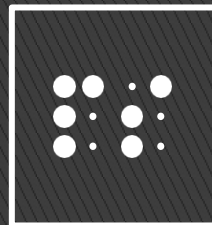
Eight Special Functions That Make Cleaning Easy and Efficient



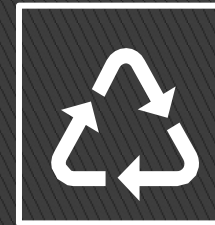
Automatic
charging, filling,
and draining



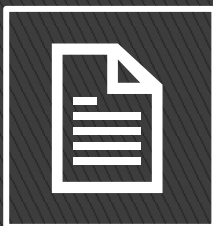
Break point
resuming



Cleaning of
missed areas



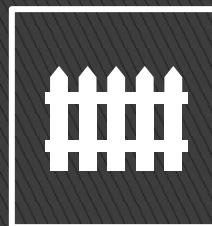
Automatic
cleaning of
recovery tank



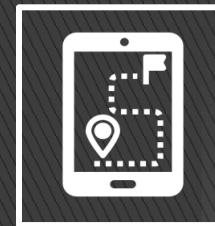
Detailed
Cleaning Report



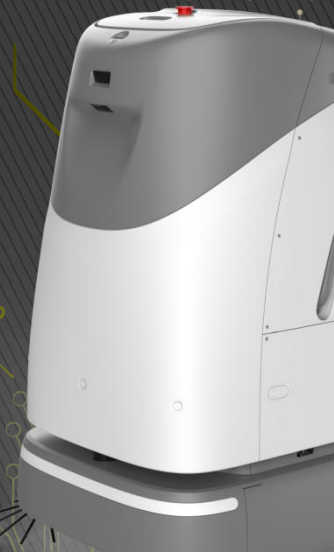
Scheduled
tasks



Autonomous obstacle
avoidance



Intelligent
mapping



Cleans a variety of large spaces with ease



Hospital



Manufacturing



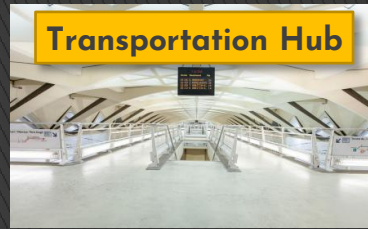
Warehouse



Shopping Center



Transportation Hub



Airport Lobby



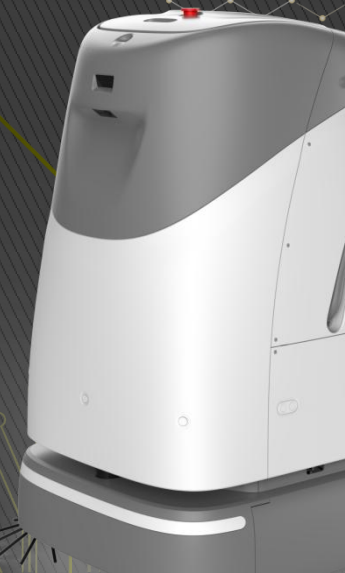
Sports Facility

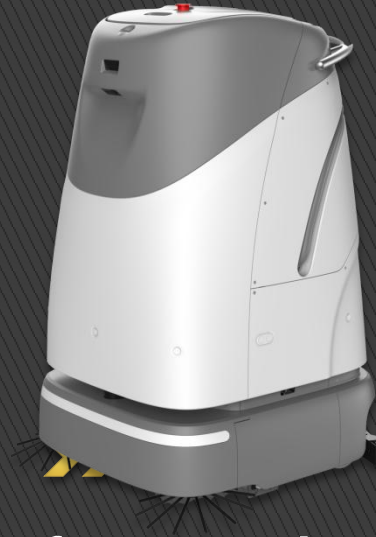


Convention Center

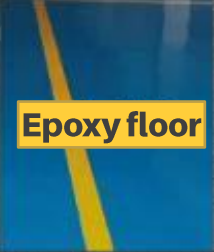


School

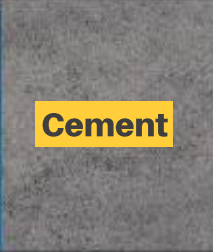




Ideal for most types of common hard floors



Epoxy floor



Cement



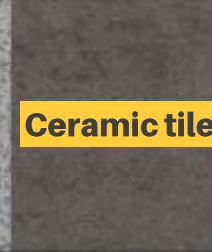
Marble



Terrazzo



Rubble



Ceramic tile



Silicon



PVC floor

Sweep and Scrub Without Lifting a Finger



Helping Facilities to Reduce Costs and Improve Efficiency

- ✓ **Dual rotating brushes = sweep + scrub**
- ✓ **Cylindrical brushes = great on grout!**

1+1 Sweeper and
scrubber in one

- ✓ **Cleans 10,000 - 15,000 ft²/hr**
- ✓ **Zero turn radius, fits tight spaces**

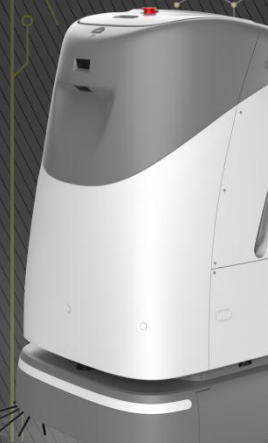


Nimble and Quick

Included workstation for automatic charging, water discharge, and refill



Self maintenance

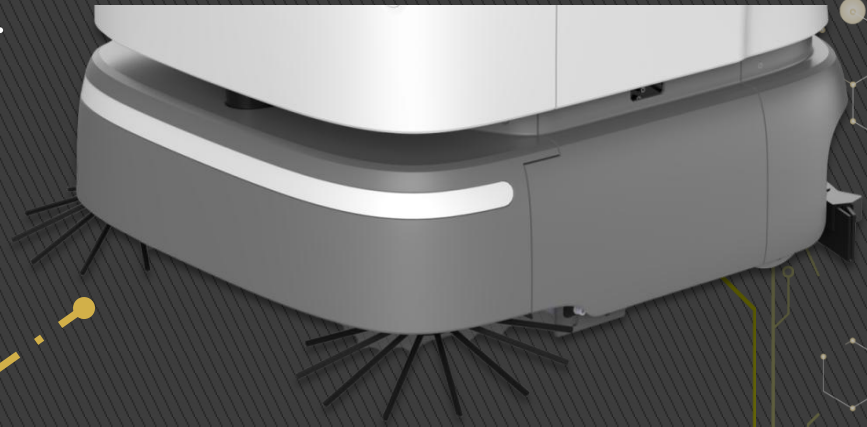
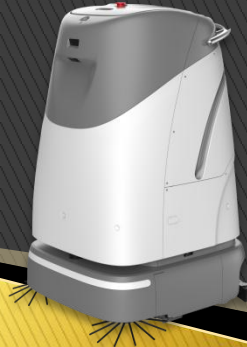


Efficient Cleaning is the Name of the Game

Dual rotating brushes allow CC3 to sweep as it scrubs and keeps the unit compact.



Cylindrical brushes provide high rpm to better sweep debris while scrubbing

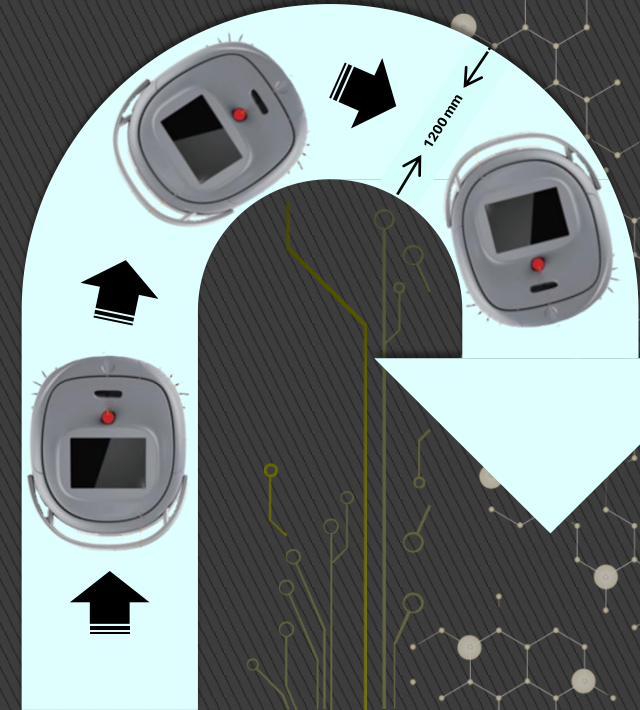


Dual rotating brushes

Fast and Highly Efficient Sleek and Nimble



CC5 Parameters	
Dimension (mm)	L800*W700*H1200
Net weight (kg)	200
Maximum cleaning efficiency (m ² /h)	1440
Sweeping width (mm)	800
Scrubbing width (mm)	500
Squeegee width (mm)	706
Minimum U-turn width (mm)	1200
Maximum Slope	8 degrees



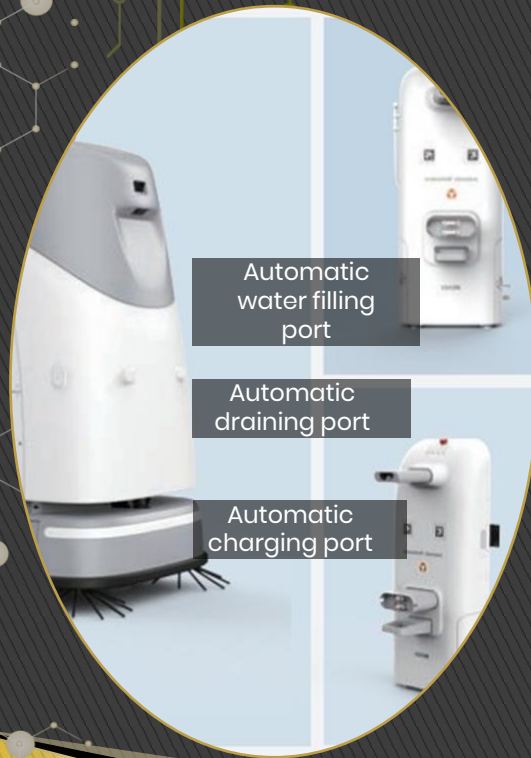
Additional Parameters

CC3 Parameters	
Solution Tank Capacity (L)	42
Recovery Tank Capacity (L)	30
Trash Can Capacity (L)	1.5
Battery Specs (V/Ah) 	24/60 Li-Ion
Battery Life	Up to 3 hr
Charging Time	1.5 hr full charge

Smaller Tank, Big Performance

Because of CC3's auto water refilling/dumping, a smaller tank doesn't compromise cleaning efficiency. CC3 also recycles dirty water, effectively making the clean water tank 15 gal / 56.8 L.

Long-Lasting Operation on One Charge, No Manual Intervention



Automatic charging, filling and draining

Automatic docking, automatic addition of cleaning agents and defoamers

Fully charges in 1.5 hours

Automatic cleaning of Recovery Tank

Maintenance-free, less manual intervention, longer running time on one charge

Odor-free, less manual intervention, improved sanitation

Well-Designed Safety System: Double Protection Supported by Hardware and Algorithm

Hardware

Anti-collision, anti-skid, anti-fall functions



Electromagnetic braking, safe
parking



Algorithm



Multi-sensor fusion sensing, 360° coverage
without blind spot



Supporting multi-mode intelligent obstacle
avoidance and mapping

Leading Fusion Positioning & Fusion Sensing Technologies

Fusion Positioning Solutions

“Four-in-One” Framework for Fusion Positioning



Laser SLAM: positioning and navigation in areas with specific features



RTK: positioning and navigation in open or spacious areas



IMU: low-cost IMU with guaranteed accuracy of fast positioning (DR)



Wheel speedometer: high-precision wheel speedometer with guaranteed accuracy of fast positioning (DR)

Recommended hardware configuration

Standard



LiDAR: 16-beam



Vision: FOV $60^\circ \times 1 + \text{FOV } 90^\circ \times 2$



Ultrasonic sensor: 12

Optional



Surround view: FOV $190^\circ \times 4$



LiDAR: 16-beam * 1 (complex scenario / small obstacle detection)

LiDAR 16-beam * 1 (complex scenario / small obstacle detection)

Algorithms

Laser obstacle detection

Visual detection

Laser-vision space time synchronization

Ultrasonic detection

Multi-sensor fusion

Main Functions

Position, type, length, width, height, etc. of the obstacle

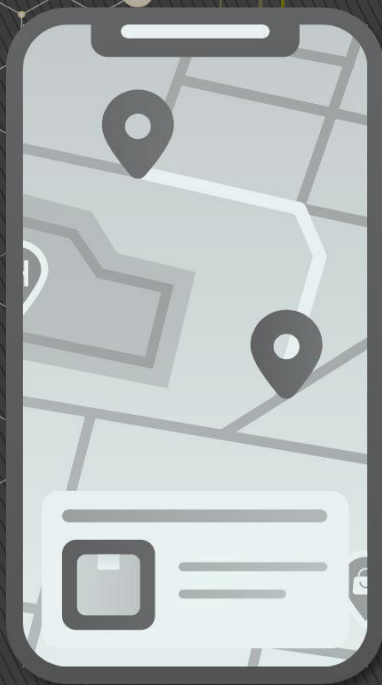
Typical obstacle, traffic light, lane line detection, etc.

External parameter calibration of high-precision laser camera; laser-vision time synchronization triggered by hardware

Ultrasonic radar target output

Multi-source information fusion based on GNN/EKF/DST

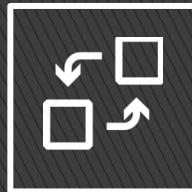
User-Friendly Interface



Operator



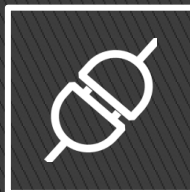
One-click
start



One-click manual-
Automatic switch



Cleaning the
missed areas



Break Point
Resuming



Scheduled
task

Supervisor



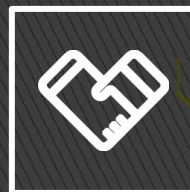
Operation
Report



Cloud-based
operation



Cloud-based
service



Worry-Free
after sales
service



OTA
Service

Thank You



PRINGLETM
ROBOTICS