



PRINGLE
ROBOTICS

Who are we?

- Autonomous Service BoT Solution Provider
- Pioneers in Health Care & Facilities Management

Our Mission

**Create Autonomous Solutions to empower people and
communities to be Productive & Safe**



CC1 – 4 in 1 Floor Cleaner

- **The 4 in 1 sweeping, mopping, scrubbing and vacuuming CC1 is capable of automatically cleaning virtually any type of hard floor or carpet.**
- **Schedule jobs for different areas and floor types**
- **Easily change brushes and other attachments to fit any type of floor**
- **Use in manual mode as well for quick spot cleaning**
- **Auto workstation available to automatically dump dirty water and bring on new clean water, as well as charge.**



CC1 – Floor Cleaning Robot – Specifications

Machine Dimensions	663 * 568 * 682mm
Machine Weight (no liquid)	60kg
Water Tank Capacity	Clean Water Tank 15L Waste Water Tank 15L
Minimum Cleaning Pass Width	700mm
Sweeping Width	500mm
Scrubbing Width	400mm
Charging Time	1.5 hours to 80%, less than 4 hours for full charge
Battery Life	3-6 hours
Cleaning Efficiency	700 - 900 sq. meters/H
Cruise Speed	0.1 - 1.2 m/s
Local Interaction	10.1 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning
Functions	Mopping + Vacuuming + Sweeping + Scrubbing



CC3 – Heavy Duty Floor Scrubber

- **The heavy duty CC3 is built to handle floor cleaning for large facilities.**
- **Schedule jobs at various times for different areas**
- **Recycles dirty water to extend cleaning time**
- **Use in manual mode as well for quick spot cleaning**
- **Auto workstation available to automatically dump dirty water and bring on new clean water, as well as charge.**



CC3 – Floor Scrubbing Robot – Specifications

Machine Dimensions	800 * 700 * 1200mm
Machine Weight (no liquid)	200kg
Water Tank Capacity	Clean Water Tank 42L Waste Water Tank 30L
Minimum Cleaning Pass Width	800mm
Squeegee Width	706mm
Scrubbing Width	500mm
Charging Time	45 minutes to 80% charge, 1.5 hours to full charge
Battery Life	2.5 to 3 hours
Cleaning Efficiency	1200 - 1440 sq. meters/H
Cruise Speed	0.1 - 1.2m/s
Local Interaction	10.1 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning
Functions	Scrubbing



CC5 – Industrial Floor Scrubber

- The industrial size CC5 is built to handle floor cleaning for large facilities. 3-Dimensional Lidar enables accurate mapping of large areas.
- Schedule jobs at various times for different areas
- Use in manual mode as well for quick spot cleaning. Rideable in manual mode and to support mapping large areas.
- Auto workstation available to automatically dump dirty water and bring on new clean water, as well as charge.
- Lithium Iron Phosphate battery with improved life cycle and performance.



CC5 – Floor Scrubbing Robot – Specifications

Machine Dimensions	1340 * 1024 * 1350mm
Machine Weight (no liquid)	380kg
Water Tank Capacity	Clean Water Tank 140L Waste Water Tank 170L
Minimum Cleaning Pass Width	1160mm
Squeegee Width	1024mm
Scrubbing Width	800mm
Charging Time	1.5 hours to 80%, less than 4 hours for full charge
Battery Life	3 to 6 hours
Cleaning Efficiency	2300 - 3800 sq. meters/H
Cruise Speed	0.1 - 1.4m/s
Local Interaction	10.1 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning
Functions	Scrubbing



Garbage Collection Robot – Garbee Bot



Specifications:

- Fully autonomous operation.
- Use in “follow me” mode or dispatch to locations remotely.
- 45 gallon industrial trash bin pre-installed.
- Options for other attachments or use cases.

Autonomous EVS Solutions

- Network Operations Console (“NOC”)
- Facility Management Solution (“FMS”)
- Pristine

Network Operations Console (“NOC”)

Fleet Management and Data Platform

- The NOC is an asset management and monitoring platform for facility assets.
- Users can view operating and health statistics of various robots and other company hardware to ensure the fleet is being optimally utilized.
- Various permission levels can be assigned to users to allow directors, managers and operators to view only those assets for which they are authorized and/or responsible.
- Other functionality being added in the near future includes:
 - Real-time alerts for task completion, errors, and other configurable triggers.
 - Remote operation of BoTs
 - Integration with other facility sensors such as people counters, EVS scheduling tools, and other 3rd party software and hardware assets.





Assets



Pringle Technologies
Peoria, Illinois

WARNING



POSX Nuvision Tablet-014

Pringle Technologies
Peoria, Illinois

HEALTHY



AURA-AIR AURA-15

Pringle Technologies
Peoria, Illinois

HEALTHY



CC3 CC3

OSF HealthCare
Peoria, Illinois

HEALTHY



GO G019

OSF HealthCare
Peoria, Illinois

WARNING



PLATFORM Platform20

OSF HealthCare
Peoria, Illinois

HEALTHY



CC1 PUDU-CC1

OSF HealthCare
Peoria, Illinois

HEALTHY

CC3 CC3



HEALTHY

9 hours ago

Heartbeat



82.0 %

Battery life



Details

Name CC3
Type BoT

Serial Number 1erfddd3423432

Heart Beat 11/13/2023, 8:44:25 PM
IP Address 241.219.186.101

Business OSF HealthCare

City Peoria
Region Illinois
Country US
Latitude 40.781067792332635
Longitude -89.68793926568408

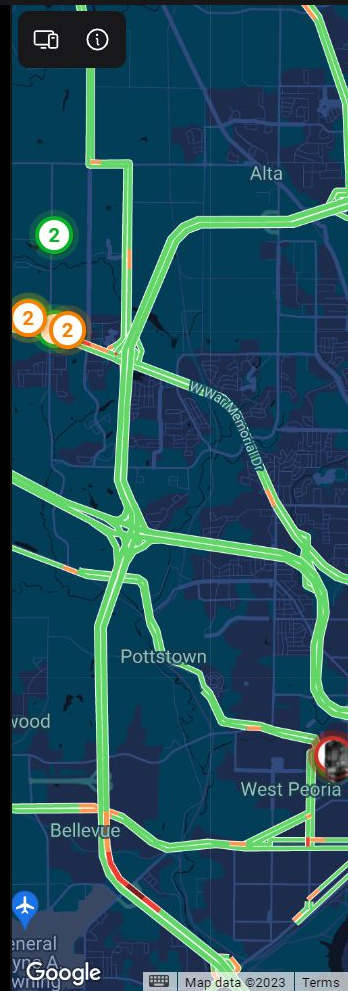


Controls



Work Log CC3

Oct 9th 2023	1 month ago	<
Sep 27th 2023	2 months ago	<
Oct 6th 2023	1 month ago	<
Sep 11th 2023	2 months ago	<
Oct 10th 2023	1 month ago	<
Oct 5th 2023	1 month ago	<
Oct 4th 2023	1 month ago	<
Oct 3rd 2023	1 month ago	<
Oct 2nd 2023	1 month ago	<
Sep 29th 2023	2 months ago	<
Sep 28th 2023	2 months ago	<
Sep 26th 2023	2 months ago	<
Sep 25th 2023	2 months ago	<
Sep 22nd 2023	2 months ago	<
Sep 21st 2023	2 months ago	<
Sep 20th 2023	2 months ago	<
Sep 19th 2023	2 months ago	<



Facility Management Solution (“FMS”)

Workflow and Scheduling Management Platform

- FMS allows EVS management to build workflows, tasks and schedules for staff based on a variety of configurable rules and conditions.
- EVS tasks and reporting can be managed and viewed at both the facility and employee/contractor level.
- FMS is integrated with the NOC by linking tasks and rules to the operation of assets such as floor cleaning units, and also by incorporating information from assets such as people sensors.



Employee Management

Janitors

John Smith
Floor 1

Maddy Johnson
Floor 2

Calum Blevins
Floor 3

Stefan Roberts
Flex

Building A

Floor 1

John Smith

Office 1

Mop Floor

Replenish Su...

Clean Surfaces

Restroom 1

Mop Floor

Replenish Su...

Clean Surfaces

Office 2

Mop Floor

Replenish Su...

Clean Surfaces

Office 3

Mop Floor

Replenish Su...

Clean Surfaces

Restroom 1

Mop Floor

Replenish Su...

Clean Surfaces

Restroom 2

Mop Floor

Replenish Su...

Clean Surfaces

Floor 2

Maddy Johnson

Office 1

Mop Floor

Replenish Su...

Clean Surfaces

Restroom 1

Mop Floor

Replenish Su...

Clean Surfaces

Office 2

Mop Floor

Replenish Su...

Clean Surfaces

Office 3

Mop Floor

Replenish Su...

Clean Surfaces

Restroom 1

Mop Floor

Replenish Su...

Clean Surfaces

Restroom 2

Mop Floor

Replenish Su...

Clean Surfaces

Building View

Locations

Building A

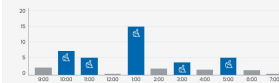
Floor 1

Floor 2

Floor 3

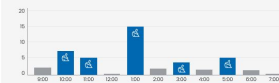
Floor 4

Office 1



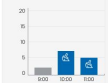
Start Time	End Time	Usage	Checked By	Task
8:00 PM	9:00 PM	1	John Smith	Inspected
9:00 PM	10:00 PM	5	John Smith	Inspected
10:00 PM	11:00 PM	1	John Smith	Inspected
11:00 PM	12:00 AM	3	John Smith	Cleaned
12:00 AM	1:00 AM	1	John Smith	Inspected
1:00 AM	2:00 AM	1	John Smith	Inspected
2:00 PM	3:00 PM	1	John Smith	Inspected
3:00 PM	4:00 PM	1	John Smith	Inspected
4:00 PM	5:00 PM	1	John Smith	Inspected
5:00 PM	6:00 PM	1	John Smith	Inspected
6:00 PM	7:00 PM	15	John Smith	Inspected

Restroom 1



Start Time	End Time	Usage	Checked By	Task
8:00 PM	9:00 PM	1	John Smith	Inspected
9:00 PM	10:00 PM	5	John Smith	Inspected
10:00 PM	11:00 PM	1	John Smith	Inspected
11:00 PM	12:00 AM	3	John Smith	Cleaned
12:00 AM	1:00 AM	1	John Smith	Inspected
1:00 PM	2:00 PM	1	John Smith	Inspected
2:00 PM	3:00 PM	1	John Smith	Inspected
3:00 PM	4:00 PM	1	John Smith	Inspected
4:00 PM	5:00 PM	1	John Smith	Inspected
5:00 PM	6:00 PM	1	John Smith	Inspected
6:00 PM	7:00 PM	15	John Smith	Inspected

Office 2



Start Time	End Time	Usage	Checked By	Task
8:00 PM	9:00 PM	1	John Smith	Inspected
9:00 PM	10:00 PM	5	John Smith	Inspected
10:00 PM	11:00 PM	1	John Smith	Inspected
11:00 PM	12:00 AM	3	John Smith	Cleaned
12:00 AM	1:00 AM	1	John Smith	Inspected
1:00 PM	2:00 PM	1	John Smith	Inspected
2:00 PM	3:00 PM	1	John Smith	Inspected
3:00 PM	4:00 PM	1	John Smith	Inspected
4:00 PM	5:00 PM	1	John Smith	Inspected
5:00 PM	6:00 PM	1	John Smith	Inspected
6:00 PM	7:00 PM	15	John Smith	Inspected



Pristine

EVS Staff Assistant

- Pristine is a task management and tracking solution for EVS staff which improves efficiency and reporting.
- Pristine incorporates data and configurations from both NOC and FMS to build task lists for EVS staff. Based on defined workflows and data from sensors, Pristine provides real-time updates to EVS staff scheduled duties to ensure the most efficient use of their time.
- Data collected from Pristine such as cleaning times can be used to support people and resource management.





Tasks

Zones

All Tasks



Makers 1

3 Zones



Makers Lounge

7 Zones



Bathroom



Command Center



Conference Room



Kitchen



Quiet Room 1



Quiet Room 2



Service Bay



Stables

4 Zones



Perform Light

Due: Tue 10:00

Perform Light

Due: Wed 12:00



< Tasks

Zones

Day

History

0 Tasks

Perform Light Cleaning

PringleTellus : Mon Nov, 13 9:17 PM



Perform Deep Cleaning

PringleTellus : Mon Nov, 13 9:18 PM



Organize

PringleTellus : Mon Nov, 13 9:18 PM



Perform Light Cleaning

PringleTellus : Tue Nov, 14 6:00 AM



Perform Light Cleaning

PringleTellus : Tue Nov, 14 8:00 AM



< Back

All Activities

2 Activities



Dust the surfaces

Not Started



Start Activity

Skip



Sweep the floors

Not Started



Finish Task

Ketty - Autonomous Delivery, Hosting and Messaging Robot - Specifications

Machine Dimensions	435x450x1120mm
Machine Weight	65lbs
Payload	10lbs/tray, 30lb total payload
Charging Time	<4h
Battery Life	8-12h
Cruise Speed	0.5-1.2m/s (adjustable), Climbing angle ≤ 5 degrees
Local Interaction	10.1 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning
LED Screen Size	1080x640 pixels, support static pictures, video and audio



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Temi – Autonomous Hosting, Informational and Concierge Robot – Specifications

Machine Dimensions	1000H x 350W x 450Dmm
Machine Weight	26lbs
Payload	6.6lbs
Charging Time	<4h
Battery Life	6-8h
Cruise Speed	0.5-1.0m/s (adjustable), Climbing angle ≤ 5 degrees
Local Interaction	13.3 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning
LED Screen Size	1080x640 pixels, support static pictures, video and audio



Bella- Autonomous Delivery and Hosting Robot - Specifications

Machine Dimensions	565x537x1290mm
Machine Weight	120lbs
Payload	20lbs/tray, 80lb total payload
Charging Time	<4h
Battery Life	14-16h
Cruise Speed	0.5-1.2m/s (adjustable), Climbing angle ≤ 5 degrees
Local Interaction	10.1 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning



Swift- Autonomous Delivery and Hosting Robot - Specifications

Machine Dimensions	488*593*1281mm
Machine Weight	130lbs
Payload	3-5 trays, 77lb total payload
Charging Time	<5h
Battery Life	14-16h
Cruise Speed	0.5-1.2m/s (adjustable), Climbing angle ≤ 5 degrees
Local Interaction	10.1 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning



Hola - Autonomous Heavy Duty Delivery and Bussing Robot - Specifications

Machine Dimensions	541*531*1226mm
Machine Weight	130lbs
Payload	30lbs/shelf, 120lb total payload
Charging Time	4.5h
Battery Life	14-16 hours
Cruise Speed	0.5-1.2m/s (adjustable)
Local Interaction	10.1 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning
Compartments	4 compartments (adjustable)
Paging Functionality	3000m ² area coverage



Autonomous Disinfection

Disinfection: Laboratory tested with *Staphylococcus aureus* and *Escherichia coli* with 4-Log disinfection

- Ultrasonic Dry Mist Disinfection
 - 2L/H Ultrasonic Dry Mist Disinfection
 - $\leq 10 \mu\text{m}$ Dry Disinfectant Particles
 - 2L/H Max Atomization Rate
- Ultraviolet C Disinfection (Far UVC (222 nm) Coming in Q3 or Q4 2022)
 - 99.99% Disinfection Rate
 - $188\mu\text{W}/\text{cm}^2$ UV-C Disinfection
 - Intelligent UV-C Lamp Protector
 - 360° Sterilization

Benefits:

- Contact-less UV-C radiation.
- Automated contact-less sanitization of all areas in facilities using dry-mist or UV-C disinfection.
- Minimize staff contact with Pathogens
- Scheduled or Ad Hoc cleaning routines
- Control directly via a touch screen, or remotely through mobile app.



Puductor 2 – Autonomous Disinfection Robot – Specifications

Machine Dimensions	544 x 538 x 1290mm
Machine Weight (no liquid)	60kg
Water Tank Capacity	15L
Charging Time	<4h
Battery Life	14 - 16h
Cruise Speed	Max 1.0m/s
Local Interaction	10.1 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning



Bubble Fish – Autonomous Disinfection Robot

- Automated dry-mist disinfection with adjustable spray power
- Small footprint allows for navigation of tight spaces
- Schedule regular runs for various areas without need for human intervention
- Competitively priced to ensure strong ROI



Bubble Fish - Specs

Machine Dimensions	407mmx421mmx745mm
Machine Weight (no liquid)	50 lbs
Water Tank Capacity	12L
Charging Time	<4h
Battery Life	2-3h
Cruise Speed	Max 0.3m/s
Local Interaction	Mobile App
Positioning Method	Visual + Laser SLAM Positioning



Lab Sample, Pharmaceutical Delivery Solutions – Flash BoT

- Automated Secure Delivery requiring passcode
- Integrate with elevators and automatic doors
- Text Messages recipient once arrived with passcode to open chamber
- Configurable chambers with 2 to 4 chambers
- UV-C Disinfecting Compartments



Flash - Autonomous Delivery and Room Service - Specifications

Machine Dimensions	539*515*1050mm
Machine Weight	120lbs
Payload	Max65lbs, 32.5lbs/layer
Charging Time	4.5h
Battery Life	12h
Cruise Speed	0.5-1.2m/s (adjustable)
Local Interaction	10.1 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning
Compartments	2-4 compartments (adjustable)
Integrations	Smart Elevators, Doors, Gates

New



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Lab Sample, Pharmaceutical Delivery Solutions – W3 BoT

- Automated Secure Delivery requiring passcode
- Integrate with elevators and automatic doors
- Text Messages recipient once arrived with passcode to open chamber
- Configurable chambers with 2 to 4 compartments



Lab Sample, Pharmaceutical Delivery Solutions – W3 BoT – Specifications

Machine Dimensions	450*550*1080mm
Machine Weight	105lbs
Payload	Max44lbs, 22lbs/layer
Charging Time	6h
Battery Life	8h to 12h
Cruise Speed	0.5-1.2m/s (adjustable)
Local Interaction	11.6 inch touch screen
Positioning Method	Visual + Laser SLAM Positioning
Compartments	2-4 compartments (adjustable)
Integrations	Smart Elevators, Doors, Gates



Let's
Connect &
Level Up
For The
Future

www.PringleRobotics.ai

