MICRONVIEW

EMC Robot Series
Environmental Monitor
& Control Robot Series

APC/BAS dual mode Robot

Airborne Particle Counter & BioAerosol Sampler Dual Mode Robot



Capabilities & Features

- Safe and Efficient - Automated active air sampling
- Easy deployment - Scheduled environmental monitoring
- Integrated Mechanical Arm - High accuracy, reliable, low risk
- Convenient Monitoring - Flexible adaptation to various scenarios

* EMC Robot is shown with Remote BioAerosol Sampler module
* Compatible with Remote BAS module and Remote Particle

Product Introduction

Airborne Particle Counter Sampler & BioAerosol Sampler Dual Mode Robot (APC/BAS dual mode Robot) enables automated sampling in cleanroomenvironments through a mobile active air sampler with robotic arm that can automatically place and remove agar plates. A SLAM* algorithm and LiDAR are used by the robot to ensure accurate site arrival and object avoidance. The unit can traverse designated areas ,automatically open and close doors, autonomously ride elevators, and return to home base for charging at a low battery level. Through automated sampling , the environmental impact of operators and potential for human error can be minimized.

The APC/BAS dual mode Robot is equipped with a high precision 6-axis robotic arm and Micronview control software which is easy to configure and use. The Micronview control software is available on tablets , smartphones and PCs. Through a wireless connection , the software is used to communicate with the APC/BAS dual mode Robot, schedule tasks ,and assign work plans for the automated active air sampling of your controlled environments.

Product Features

Network and Data Communication
- Multiple networking solutions and report export options available
- Build-in wireless network, IoT card and WAN connection
- Live data transfer to the server or facility system (LIMS etc.) via WIFI/LTE

Precise Positioning
- Ensures accurate positioning at sample locations
- High precision robotic arm, excellent repeatability

Flexible Deployment
- Rapid sampling module replacement
- Easy to integrate and and simple to program with desired routine

Automatic Charging
- Operate for up to 18-hours on a single charge
- Automated return to recharging station



*SLAM is an acronym for Simultaneous Localization And Mapping, which supports localization and map construction for EMC Robots in unknown environments.

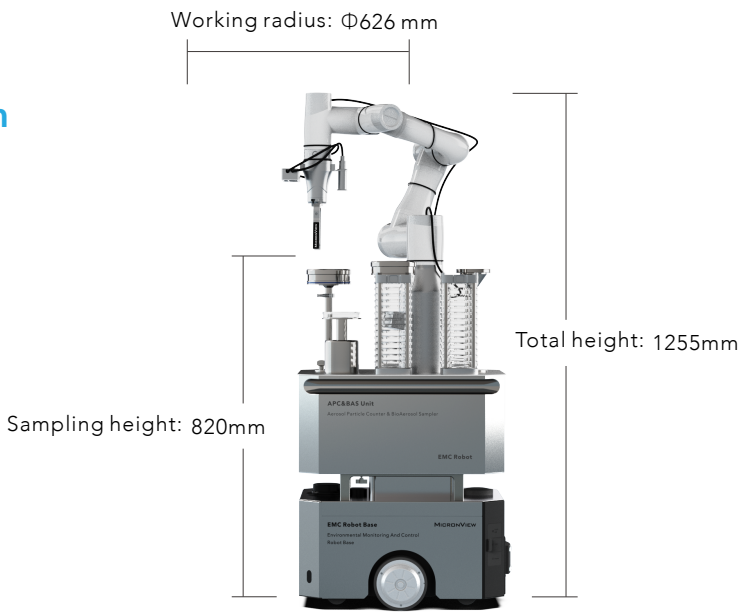
Product Application

The unit's automated navigation and sampling lower the risk of contamination by reducing human presence in critical areas, and reduce the potential for error in sampling location and time. Resource allocation can also be optimized by automating routine functions and assigning personnel to other critical tasks. The APC/BAS dual mode Robot can also be equipped with a temperature and humidity sensor to collect and store ambient temperature and humidity information.



High-Precision 6-Axis Mechanical Arm

- IP54 protection class, designed to be sprayed, disinfected and sterilized directly
- Meets ISO 15066 and ISO 13849
- Repeatability of ±0.02mm, great accuracy
- 6-axis articulated arm enables complex movements in a small working radius



Specification Sheet

Specification		Environmental Monitor & Control Robot Base
Mass and Volume	Base Diameter	473mm×338mm×526mm(W×H×D)
	Net weight	40kg (incl. battery weight 14kg)
	Maximum load	40kg
Material	Chassis	316L stainless steel
	Wheels	Polyurethane
Battery performance	Battery capacity	960Wh (24V)
	Working power	50W (With full power, it can work continuously for 18h)
	Charging time	4h (220VAC,5A)
	Battery life	> 3 years (Discharge capacity not less than 60% of initial capacity)
Communication		WIFI
Cleaning		Sealed chassis, resists corrosivity of disinfectant wiping
Maximum map area		500m×500m
Ground resolution		5cm×5cm
Vehicle performance	Cruising speed	0.5m/s (Modifiable, up to 1.2m/s)
	Passable width	810mm
Warranty		24 months (calculated from the date of product activation or six months after the date of manufacture, whichever comes first)

Specification	Mechanical Arm
Effective load	3kg
Operating radius	626mm
Repeatability	±0.02mm
Power	150W
Material	Aluminium
Weight	12kg

Specification	Remote BAS particle Sensor	Specification	Remote APC particle sensor
Flow rate	100LPM±2.5%	Flow rate	28.3LPM±3%
Working power	17W(Max)	Working power	AC 40W
Sample quantity	Maximum of 30 plates per load		

Ordering Information

Name	Model	Order No.
Environmental Monitor & Control Robot Base | EMC Robot Base	S110	MACHS110
Airborne Particle Counter Sampler & BioAerosol Sampler Dual Mode Robot | APC/BAS dual mode Robot	SAC510B	MACHSAC510B

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