MICRONVIEW

EMC Robot Series

Environmental Monitoring
& Control Robot Series

APC&BAS Dual Mode Robot

Airborne Particle Counter & BioAerosol Sampler Dual Mode Robot

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

CAPABILITIES & FEATURES

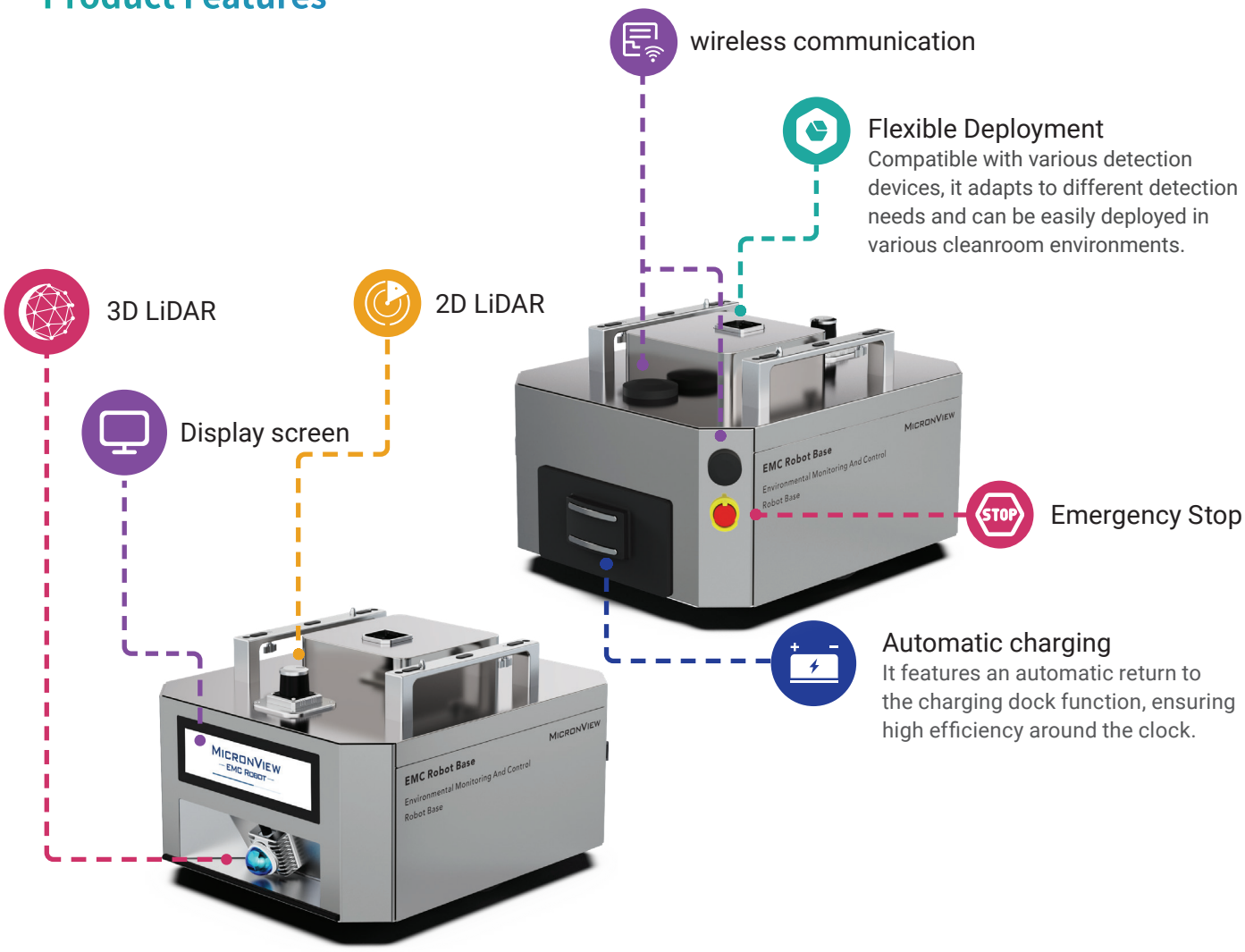
- Safe and Efficient - Automated active air sampling
- Easy Deployment - Scheduled environmental monitoring
- Integrated Mechanical Arm - High accuracy, low risk
- Convenient Monitoring - Flexible adaptation to various scenarios

Product Introduction

The Airborne Particle Counter & BioAerosol Sampler Dual Mode Robot (APC/BAS Dual Mode Robot) enables automated sampling in cleanroom environments. This module has a mobile active air sampler with robotic arm that can automatically place and remove agar plates. The robot achieves superior and accurate site arrival and obstacle avoidance through a SLAM* algorithm and LiDAR. The unit can traverse designated areas, automatically open and close doors, autonomously ride elevators, and return to home base for charging when the battery level is low. 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 that is easy to configure and control. The Micronview control software is available on tablets, smartphones and PCs. Through a wireless connection, the software can be used to communicate with the APC/BAS dual mode Robot, schedule tasks, and assign work plans for the automated active air sampling of controlled environments.

Product Features



Product Applications

The APC&BAS Dual Mode Robot reduces the risk of contamination by reducing human presence in critical areas through automated navigation and sampling. This also reduces the potential for error in sampling location and saves a significant amount of 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 sensors to collect and store additional environmental information.

FULL SAMPLE-TO-RESULT
Automated preprinted barcode identification to enhance plate traceability

VALUE ADDED
Additional environmental information gathered with on board temperature and humidity sensors

MINIMIZE HUMAN ERROR
Automated data transfer removes risk of human error in documentation

RISK AVERSION
Reduces risk of human error by reducing the need for additional presence of personnel in controlled environments. Also reduces potential issues with sampling ergonomics

LABOR SAVINGS
Robot will automatically determine battery life and status of the instrument

REDUCES HUMAN PRESENCE
Human presence in production streams and investigations can be greatly reduced

EFFICIENCY
Accurately conducts the designating sampling task for each sample location

SAFE AND RELIABLE
Robot is not restricted by typical operation shifts or human interaction

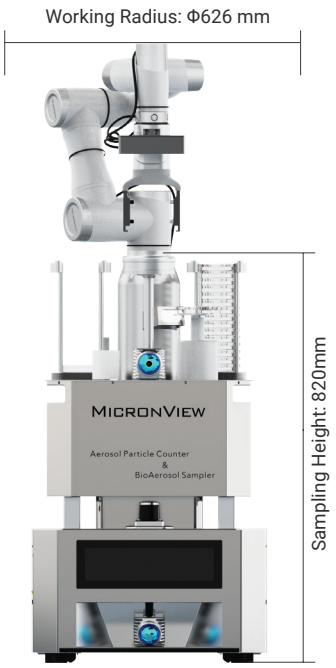
High-Precision 6-Axis Mechanical Arm

-- 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 Monitoring and Control Robot Base | EMC Robot Base
Dimensions & Weight	Dimensions （H×W×D）	350×484×603mm/13.78×19.06×23.74in
	Net Weight	50kg (Incl. battery weight 14kg)
	Maximum Load Capacity	40kg
Material	Chassis	316L stainless steel
	Wheel	Polyurethane
Battery Performance	Battery Capacity	960 Wh (24V)
	Working Power	50W
	Charging Time	5h
	Battery Life	⩾1,000 times
Cleaning		Sealed chassis, resists corrosivity of disinfectant wiping
Maximum Map Area		300,000 ㎡
Ground Resolution		2cm x 2cm
Vehicle Performance	Cruising Speed	up to 0.7m/s
	Passable Width	800mm
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	Remote APC
Flow Rate	100LPM ±2.5%	28.3LPM± 5%；100LPM± 5%
Working Power	17W (Max)	40W
Sample Quantity	Maximum of 30 plates per load	N/A

ORDERING INFORMATION

Unit	Model	Order No.
Environmental Monitoring & Control Robot Base | EMC Robot Base	S110	MACHS110
Airborne Particle Counter & BioAerosol Sampler Dual Mode Robot | APC&BAS Dual Mode Robot	SAC510B	MACHSAC510B

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