

BRIGHT MASTER
ROBOTICS

Versatile Coating One-Click Start

Intelligent Coating Robot



Industry Pain Points

High Costs

Labor-intensive work rising labor expenses have driven costs ever higher

Inconsistent Quality

Quality depends entirely on workers' skills and sense of responsibility, lacking consistency and stability

Labor Gap

Severe aging of skilled workers; fewer young people entering construction sites, making recruitment difficult

Policy Pressure

Environmental and occupational health regulations introduce additional measures, increasing costs and safety risks

Long Construction Periods

Low manual efficiency and limited crew sizes result in long construction periods

Product Introduction*

The intelligent painting robot is a new-generation, fully automated, unmanned smart construction robot. Built on a platform-based concept, it can be equipped with different functional modules to perform putty and emulsion paint coating as well as putty grinding. The maximum working height reaches 6.5 meters. Powered by a robust real-time perception-based RTPC software system, the robot supports one-click operation with no pre-scanning or path planning required.

Through different module combinations, available models include coating versions P45 and P65, and grinding versions M40 and M60. The robot enables fully automatic or semi-automatic putty and emulsion paint operations on indoor features such as walls, bay windows, and ceilings, achieving a comprehensive coverage rate of over 90%. It is suitable for residential buildings, schools, hospitals, commercial offices, and large public facilities in both fine and industrial decoration scenarios.

Compared with traditional manual work, it offers high quality, high efficiency, high coverage, and high returns. It supports long, continuous operation, significantly reduces labor demand, helps avoid environmental issues, and lowers the risks of occupational diseases and safety accidents.

High Quality

Based on a fully self-developed robotic painting construction process and methodology, the system achieves precise closed-loop control of all coating and grinding parameters. A three-in-one domain controller dynamically adapts to different application scenarios, ensuring stable, high-quality, and highly consistent construction results.

High Efficiency

Leveraging mobile coating and dynamic flow-control technology, the robot delivers an overall putty and emulsion paint coating efficiency more than 6x that of manual construction, while putty grinding efficiency exceeds manual work by over 2x. It also supports long-duration, continuous operation.

High Coverage

With powerful onboard perception combined with fully self-developed motion-control algorithms, the robot automatically performs coating and grinding across architectural features such as walls, ceilings, and bay windows, achieving a coverage rate of over 90%.

High Returns

While significantly reducing labor requirements and greatly improving construction efficiency, the platform-based design offers a low entry threshold across the entire product range. Within a mature human-robot collaborative construction model, it delivers substantial economic benefits.

Zero Learning Curve

Featuring fully self-developed real-time perception-based RTPC technology supported by an operation app, the system requires no manual intervention, no drawings, no BIM models, and no handheld scanning as preconditions. It effectively addresses construction challenges caused by real-world deviations and enables one-click start-up

Working Height

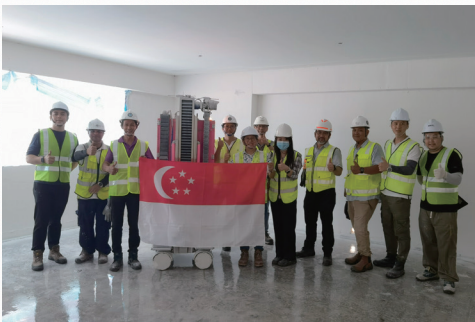
With a compact body size that allows easy access inside residential interiors, the robot achieves a maximum working height of 4.5 meters. With the optional height-extension module, the maximum working height can be increased to 6.5 meters.

Main Parameters*

	Intelligent Coating Robot P45	Intelligent Coating Robot P65	Intelligent Coating Robot M40	Intelligent Coating Robot M60
Weight	About 500 kg	About 650kg	About 450kg	About 600kg
Dimensions (LxWxH)	860×760×1700 mm	1630×1150×1750 mm	860×760×1700 mm	1630×1150×1750 mm
Operating Endurance	5h			
Capacity (Material Hopper/dust Container)	Material Hopper:60 L	Material Hopper:60 L	Dust Container: 100 L	Dust Container: 100 L
Working Height	≤4500mm	≤6500mm	≤4000mm	≤6000mm
Overall Productivity	Single-coat Putty: 80 m ² /h Single-coat Emulsion Paint: 200 m ² /h	Single-coat Putty: 100 m ² /h Single-coat Emulsion Paint: 250 m ² /h	Putty Grinding: 60 m ² /h	Putty Grinding: 80 m ² /h
Coverage Rate	Above 95%		Above 85%	Above 90%
Moving Speed	≤0.5m/s			
Obstacle Crossing Height	≤30mm			
Trench Crossing Width	≤50mm			
Climbing Angle	≤10°			
Positioning Accuracy	±30mm			

Application Cases*

- The Aesthetic Master Series painting construction robots have been deployed in over 350 customer projects, including Boyue Bay in Shunde, Foshan; Xincheng Bay in Jinping, Shantou; Kinfat Lane, Tuen Mun, Hong Kong; the Qinghai National TCM Epidemic Prevention and Treatment Base; as well as projects in Singapore, Dubai, and Vietnam. All projects achieved high-quality finished surfaces and passed quality acceptance, with a cumulative total operating area exceeding 10,000,000 m².
- Compared with traditional construction methods, the robots simplify construction workflows while improving efficiency, reducing safety risks, enhancing the on-site working environment, and ensuring stable construction quality. When used in coordinated operation with interior coating and finishing robots, they can shorten construction cycles and reduce overall project costs.



QXY Employee Dormitory, Singapore



The Seniqu, Vietnam



The Myst Singapore



Aurelle Singapore

Service Commitment

Free one-time on-site delivery, installation, and on-site guidance for new machines⁽¹⁾; free installation and operation training; free remote technical support and consulting services; lifetime on-site service⁽²⁾; 1-year warranty for the complete machine⁽³⁾; 5-year spare parts supply guarantee; 7x24-hour service hotline; on-site service within 24 hours in stationed cities and 48 hours in other cities (excluding remote areas), or on-site service as agreed.

Notes: (1) One free on-site installation service is included. (2) During the warranty period, warranty-covered items are serviced free of charge; services beyond the warranty period or non-warranty items are provided at a charge. (3) Accessories and consumables are not covered by the warranty. High-quality accessories and consumables are available for customer purchase.

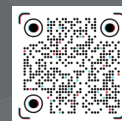
Official Website: <https://www.bm-robot.com>

Service Hotline: **400 988 2007**

(*Data are sourced from the BRIGHT MASTER ROBOTICS Laboratory. The final right of interpretation belongs to BRIGHT MASTER ROBOTICS. As technology is continuously updated, BRIGHT MASTER ROBOTICS reserves the right to modify its products. If technical parameters or product functions are changed, no further notice will be given. The actual delivered product shall prevail.)



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