

One-Pass Leveling, Millimeter-Level Precision

Concrete Leveling Robot



Industry Pain Points

In traditional construction processes, concrete leveling operations are affected by factors such as concrete properties, construction methods and schedules, and management standards, resulting in the following five major issues:

Poor Quality

Low construction accuracy; requiring secondary leveling

High Labor Demand

Low level of mechanization; low construction efficiency

Difficulty in Labor Recruitment

Declining number of workers

High Costs

Rising labor unit prices

Long Construction Periods

High labor intensity during night-time and outdoor operations

The concrete leveling robot provides a new intelligent construction solution for projects through semi-automatic remote-controlled operation, improving construction accuracy and efficiency, reducing manpower requirements, and lowering labor intensity.

Product Introduction*

The concrete leveling robot is available in 1.5 m and 2.5 m models and can be used in scenarios requiring concrete leveling, such as residential floors, basements, factories, airports, and shopping malls. The product supports semi-automatic operation via remote control and performs slurry lifting, surface finishing, and elevation control before the initial setting of concrete. Technical Highlights: Independently developed dual-degree-of-freedom adaptive system, integrated intelligent motion control algorithms, high-precision laser recognition measurement, and real-time control technology.

High Quality

Precise elevation control; with human-machine cooperation, the pass rate of initial-setting levelness (± 5 mm) exceeds 95%

High Efficiency

1.5 m head net efficiency ≥ 160 m²/h;
2.5 m head net efficiency ≥ 300 m²/h

Low Cost

Saves 2-3 traditional workers; combined high-precision floor robot operation reduces construction costs by approximately 28%

Intelligent

Remote positioning, remote machine locking, construction area statistics, real-time equipment status monitoring

Main Parameters*

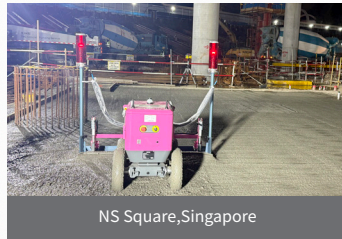
Item	Concrete Leveling Robot 15SY	Concrete Leveling Robot 15MY	Concrete Leveling Robot 25SY	Concrete Leveling Robot 25MY
Leveling Head Size	1500mm		2500mm	
Dimensions (LxWxH)	1650×1600×1650mm		2500×2200×2100mm	
Weight	175kg		350 kg	
Laser System	Topcon	MOBA	Topcon	MOBA
Tire Size	3.00-10 all-terrain tubeless tires		26x4-18 tubeless tires; optional AT26x9-14 all-terrain tires	
Leveling Thickness	30–150 mm RH		30–250 mm RH	
Operational Efficiency	≥160m ² /h		≥300m ² /h	
Operation Mode	Remote Control			
Power Supply Mode	48V / 40AH		48V 90AH	
Operating Endurance	≥5h		≥10h	
Battery Charging Time	2.5h		4h	
Maximum Travel Speed	800 mm/s			
Operating Temperature	0 °C–45 °C			

Application Cases*

- To date, the concrete leveling robot has been applied in more than 200 projects nationwide, including China Railway Construction Engineering Group Guangzhou Baiyun Station, CSCEC Fifth Engineering Division Henan University of Science and Technology Cancer Hospital, China Metallurgical Group Shanghai Changning Project, Chongqing Guangyang Island, Shaanxi Ankang Jinzhoufu, Xinjiang Sanyuanli, etc., with a total completed operating area exceeding 5,000,000 m².
- High-precision floor finishes can be achieved through combined concrete construction using four products (intelligent follow-up concrete placing pump, concrete leveling robot, concrete smoothing robot, and concrete finishing robot). Compared with traditional construction methods, subsequent structural layer leveling is reduced, saving approximately 28% in standard floor construction costs, with significant economic and social benefits. All of the above projects achieved the required technical leveling quality; zero casualties and zero accidents occurred throughout construction; workers experienced low labor intensity and the solutions received unanimous praise from customers.



RAK Central, UAE



NS Square, Singapore



Centrepole Samsung Raemian Project



Temporary concrete road construction



Basement bottom slab construction



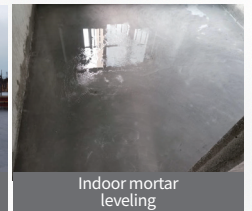
Main structure concrete construction



Garage mortar leveling layer construction



Basement roof slab and protective layer construction



Indoor mortar leveling

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**



BMR Official Website



BMR Tik Tok



BMR LinkedIn

(*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.)