

Industry Status

In the construction industry, the ground layout of the main structure is affected by factors such as the construction environment and construction equipment, and there are generally five major problems

Poor Consistency

Affected by manual technology, the construction lines vary in thickness

Low Efficiency Low degree of

mechanization Low labor efficiency

Many safety risks

Long-term squatting/occupational diseases Climbing/night work

High Strength Heavy workload/long hours Repetitive

physical labor

Difficulty recruiting workers

The number of workers has fallen and labor costs have risen

Intelligent scribing robots provide intelligent construction solutions for projects in terms of improving construction quality and efficiency, improving construction safety, reducing labor intensity, and solving labor problems.

Product Description

The intelligent scribing robot is a robot suitable for ground marking in construction. It can automatically and efficiently print all line segments (such as wall column edges, control lines, door and window lines, etc.), symbols and fonts on CAD drawings or BIM on the ground very accurately, realizing the digital twin of building structure lines. It is suitable for ground marking of different construction systems such as aluminum film, wooden formwork, new formwork, and prefabricated.



High quality

Achieve precise line laying Line marking accuracy within±3mm, construction accuracy is quaranteed



High Efficiency

Fully automatic marking operation High marking efficiency, about 3.5 times that of traditional marking teams (4-6 people)



High coverage

Within the reach of the robot The line laying coverage rate is 100%, meeting the marking requirements of different construction systems



Flexible & easy to use

The robot is small and flexible, and the operator can complete the marking operation by holding a tablet, reducing labor intensity.



Safety

Reduce the risk of workers crouching to reduce the risk of strain injuries, thereby reducing the hidden dangers of highrisk operations

Main index parameter

Weight	21kg
Machine size	506X316X26 3mm
Battery life	≥5h
Charging time	2h
Operating voltage	DC48V
IP protection rating	IP54
Service life	5Years

Line length	15000m
Marking accuracy	Edge line/ controlline / angleiron line: ±3mm Axisline:±2mmCross line:±5mm
Comprehensive ergonomics of the main structural layer of a residential building	≥200m ₂ /h
Comprehensive Ergonomics of Commercial Buildings	≥300m ₂ /h
Marking speed	≤1.0 m/s
Crossing capability	≤20mm
Gradeability	≤10°

Application Examples

The intelligent scribing robot has completed construction in projects such as Phoenix Tower in Shunde, NDP 2025, Foshan and Kefan Headquarters Building, with the construction quality has meeting the acceptance standards.



Exhibition Hall Marking



Control line, Angle Iron line, Edge line







Precision Circle Marking



End result after using the robot at NDP 2025



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