

Rebar Tying Robot RBTS1

Increased Daily Efficiency by 2-3 Times

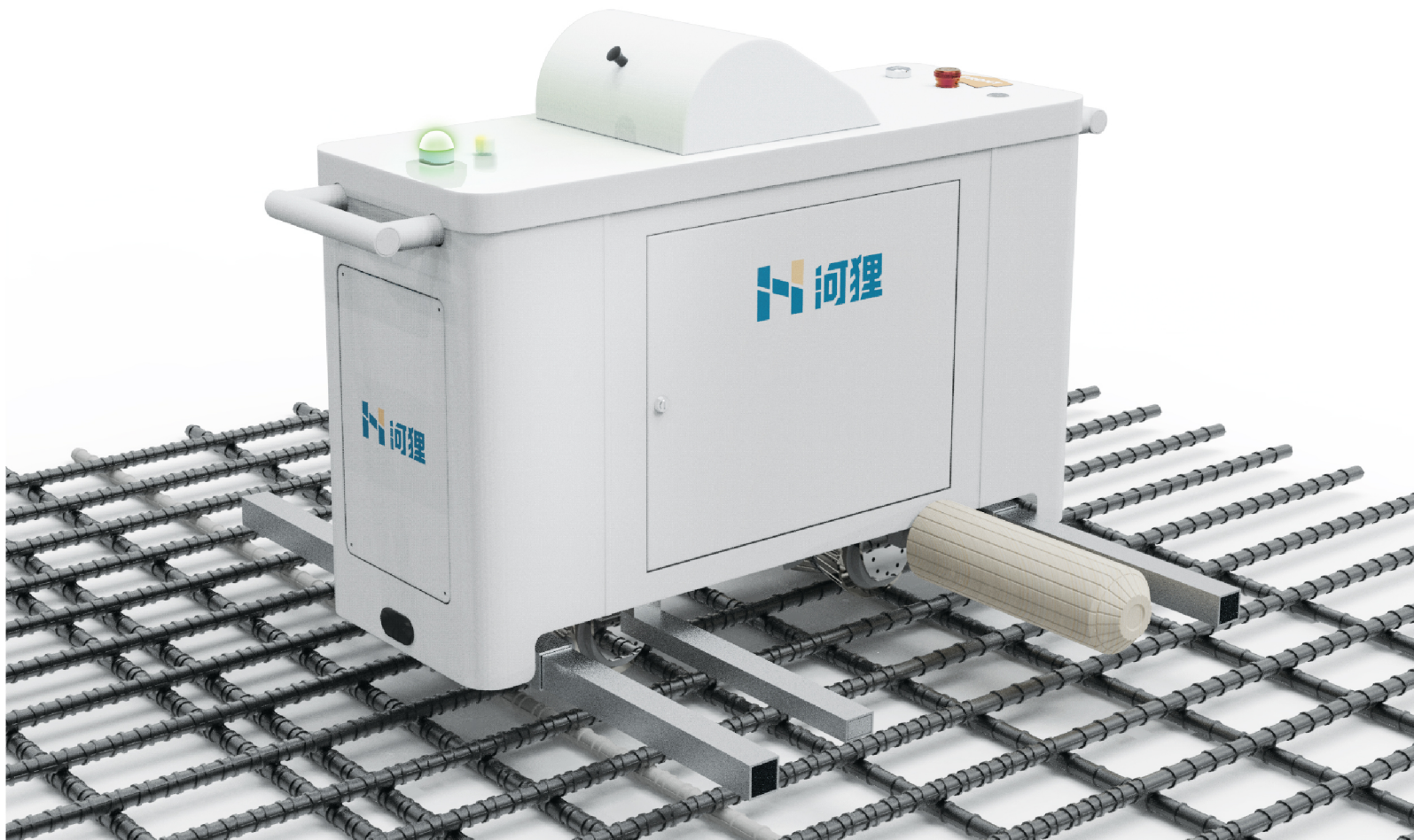
Success Rate of Tying: 99.6%

Automatic Identification | Automatic Tying

Automatic Track Change | Automatic Obstacle Avoidance



The 49th International Exhibition of Inventions of Geneva:
**Gold Medal with Congratulations
of the Jury**



Rebar Tying Robot RBTS1

The Rebar Tying Robot RBTS1 is specifically designed for various flat rebar-tying applications across multiple construction sectors. This robot excels in residential construction projects, infrastructure development (including roads, bridges, and tunnels), commercial complexes, medical facilities, dam construction, and industrial plants. Equipped with an autonomous recognition and positioning system, automatic obstacle avoidance, and intelligent track-changing technology, it efficiently completes large-scale rebar-tying tasks in the central areas of reinforcement grids.

The robot has received numerous accolades, including CIC Construction Innovation Award, the 49th International Exhibition of Inventions of Geneva: Gold Medal with Congratulations of the Jury (highest award), Innovating Hong Kong, and Hong Kong Awards For Industries Equipment and Machinery Design Award. It significantly advances automation in construction sites.



Remote Monitoring

- No need for manual intervention
- Operating distance is up to 20m



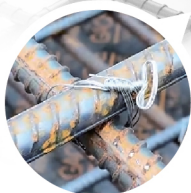
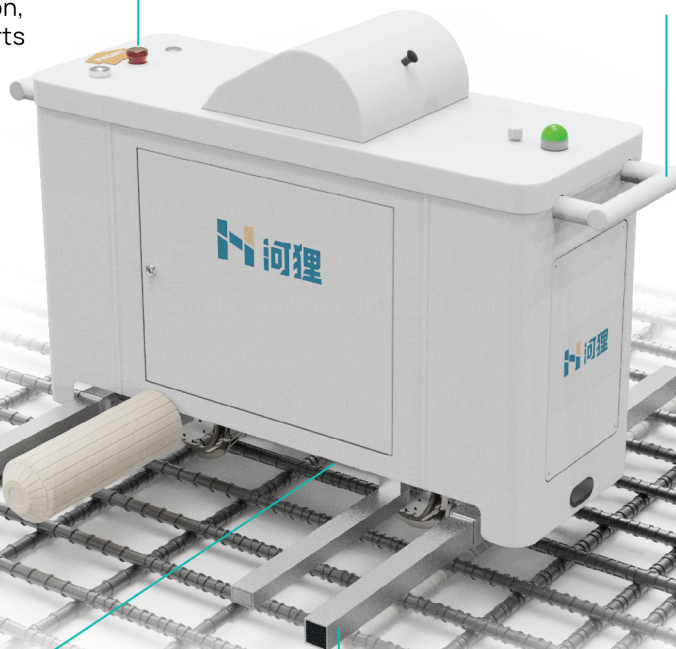
Risk Warning, Sunproof, Rainproof

- Fall protection, impact protection, tipping protection
- IP54, sunproof, rainproof
- Automatic alarm and shutdown. report fault information, audible and visual alerts



Automatic Identification, Quick Start in 10 Secs

- Automatically identify work scenarios, no need for scene graph building in advance
- Small size, fit in the boot of the car



Automatic Tying 99.6% Success Rate

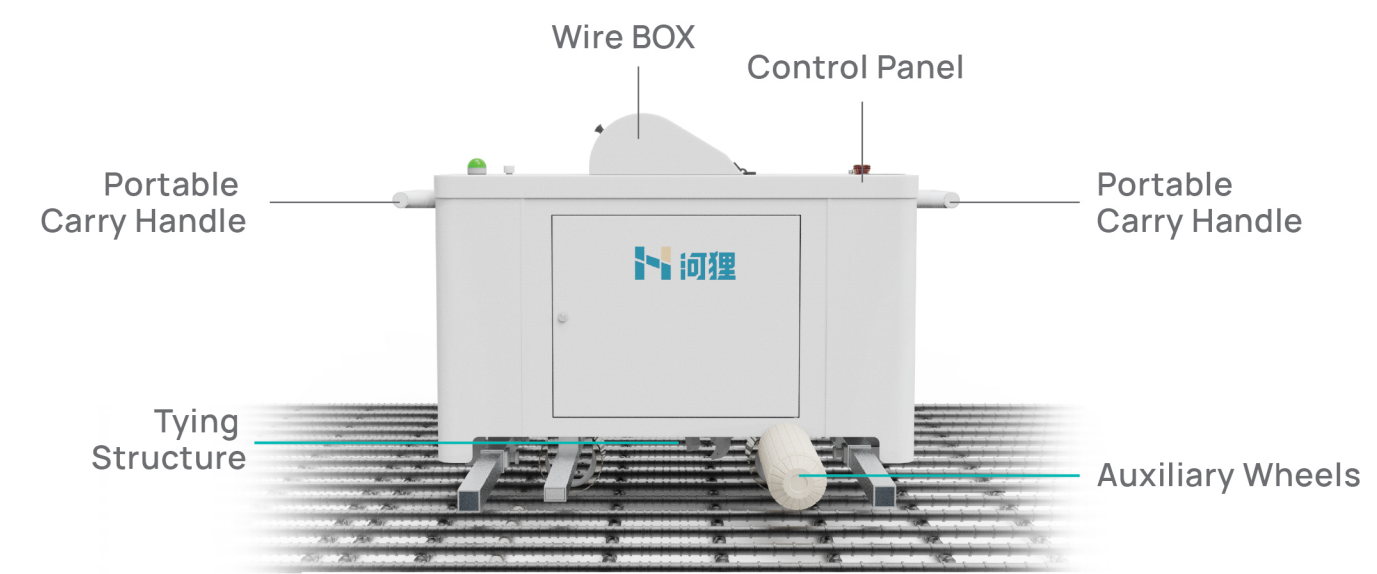
- Automatically identify rebar node
- Stable tying, wire lines head down



Automatic Track Change

- No need to set spacing in advance, automatic identification of target rebars
- Automatic identification of obstacles

Product Structure



Product Parameters

Weight	39kg	Size	730*330(800)*570mm
Efficiency	≥ 500 node/h	Duraing	8h
Adapted Rebar Spacing	100-300 mm	Adapted Rebar Size	6-32mm

Adapted Rebar Size Sheet

(Unit:mm)

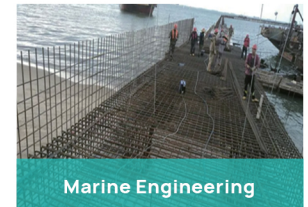
	2 Rebars					
	10	12	14	16	20	22
10	●	●	●	●	●	●
12	●	●	●	●	●	●
14	●	●	●	●	●	●
16	●	●	●	●	●	●
20	●	●	●	●	●	●
25	●	●	●	●	●	●

	3 Rebars: 2 Upper Bars				
	10-10	12-12	14-14	16-16	20-20
10	●	●	●	●	—
12	●	●	●	●	—
14	●	●	●	●	—
16	●	●	●	●	—
20	●	●	●	●	—
25	●	●	●	●	—

	3 Rebars: 2 Under Bars					
	10	12	14	16	20	25
10-10	●	●	●	●	●	●
12-12	●	●	●	●	●	●
14-14	●	●	●	●	●	●
16-16	●	●	●	●	●	●

	4 Rebars				
	10-10	12-12	14-14	16-16	20-20
10-10	●	●	●	●	—
12-12	●	●	●	●	—
14-14	●	●	—	—	—
16-16	●	●	—	—	—

Application



Partner



About HKCRC

The InnoHK Hong Kong Center for Construction Robotics (HKCRC) is a world-leading innovation platform dedicated to advancing smart construction. Established in 2020 under the Hong Kong SAR government's InnoHK initiative, HKCRC is a collaboration between the Hong Kong University of Science and Technology (HKUST) and the University of California, Berkeley.

Led by Professor Li Zexiang from HKUST, HKCRC brings together a team of top global researchers and industry experts, focusing on three core domains: Construction Robotics, Smart Machinery, and Smart Operations and Maintenance. HKCRC delivers breakthrough technologies that redefine productivity, safety, and sustainability, creating real-world impact across the construction ecosystem.

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