

# 150KG

## 4WS 4WD

# 「MOBILE ROBOT」



# RANGER

MECHANICAL DESIGN OF A 4W INDEPENDENT  
DRIVE AND STEERING MOBILE ROBOT PLATFORM



# The Best Features of Ranger 4WS4WD Robot



## Four-wheel steering four-wheel drive chassis

Ranger has built-in sensors such as industrial computer, LiDAR, camera and IMU, so it can realize environmental perception and environmental scene construction. It provides a rich interface and supports various common hardware platforms and application development platforms.



## Flexible comprehensive four wheel steering system

It can realize the in-situ steering function and flexibly pass through various extremely isolated spaces, the operation scene is expanded to various semi-enclosed and fully enclosed places.



## Released vehicle body space, modular free combination

The Ranger, which is strong, durable and simple in design, releases a head space that can carry 150 KG. Users can realize the modular free combination and quickly create their own products.



## Modular UPS with hot-swapping support

Hot-swapping allows users to quickly swap out and replace dead batteries within a battery pack while the system is still running. It make robot maintenance easier, and quickly replacement battery. Redundancy design makes the reliability of the system doubled.

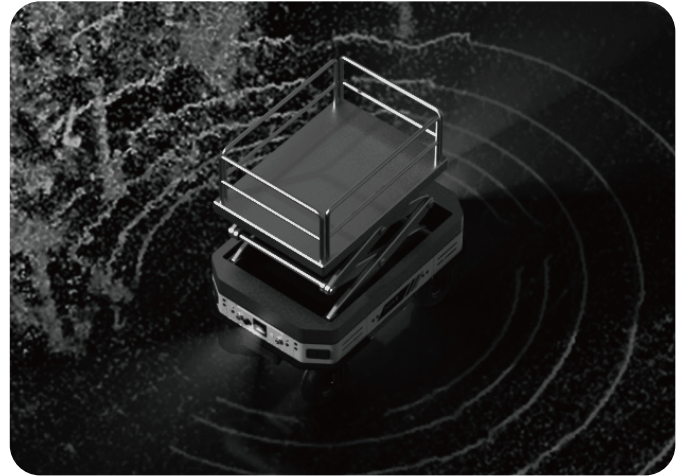


# The Best Features of Ranger 4WS4WD Robot



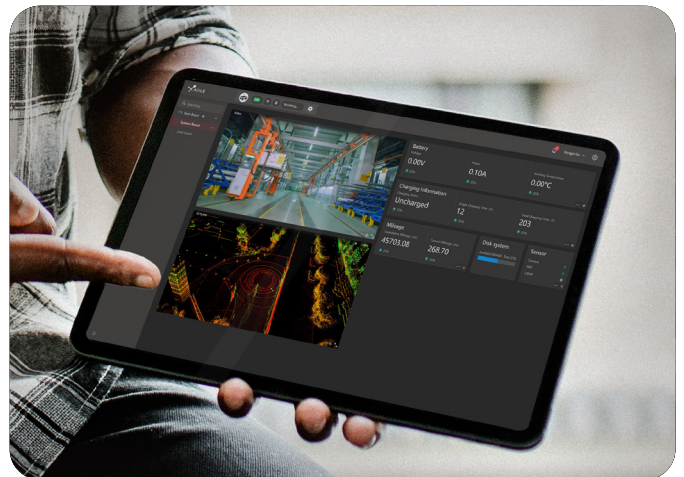
## Based on pedestrian-vehicle mixed scenes for keeping unmanned safe on the roads

The Ranger has been equipped with lidar, camera and ultrasonic sensors, which enable omnidirectional perception of the surroundings. It can detect obstacles approaching from behind or on the sides, making it suitable for various indoor and outdoor mixed scenes such as industrial parks, parks, and parking garages.



## Intelligent scheduling algorithm, multi-point path planning

Ranger has a very effective intelligent scheduling algorithm and refined map construction technology, it can complete functions such as autonomous planning and navigation, line-tracking navigation and multi-point route planning to complete operations efficiently.



## NAVIS navigation visualization, real-time change of operational tasks

NAVIS SLAM cloud navigation real-time processing system supports map management, task execution, task change and other functions, it also supports open API (interface) to meet the needs of different users in any scene.

| Ranger                        | Parameter                               |
|-------------------------------|---|
| Size                          | 1228*876*475MM                          |
| Wheelbase                     | 560 MM                                  |
| Track                         | 890MM                                   |
| Power                         | 48V Brushless Geared Hub Motor          |
| Power Rating                  | 600w*4                                  |
| Torque Rating                 | 22NM*4                                  |
| Speed                         | 0~2.6m/s                                |
| Drive Form                    | Omnidirectional                         |
| Obstacle Surmounting Capacity | 100mm (Full Load of Vertical Obstacles) |
| Climbing Ability              | 10°                                     |
| Weight                        | 100KG                                   |
| Load                          | 150KG                                   |
| Endurance Time                | 2-8H                                    |
| Charging Time                 | 1h(Single Battery)                      |
| Battery Type                  | Lithium Battery                         |
| Single Battery Capacity       | 24AH (Up to Four Batteries)             |
| Voltage Rating                | 48V                                     |
| Application                   | Engineering Survey                      |
|                               | Energy Inspection                       |
|                               | Intelligent Security                    |
|                               | Logistics Distribution                  |



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