

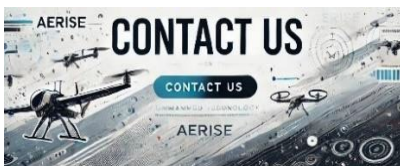
Intelligent Networked Mobile Robot (AMR-M1)

The AMR-M1 series of intelligent navigation mobile robots is based on the MT-04 Pro series mobile platform, which is an Ackermann front steering model. It has good load capacity and movement performance, and its movement control mode is relatively simple, making it easy to learn and use. This series of intelligent navigation robots is also equipped with a 3D laser radar (16-line laser radar), depth camera, high-precision IMU module, high-precision differential RTK module, and high-performance computing board, among other components. Our company has developed algorithms such as 3D laser navigation, RTK navigation, and visual and laser multi-sensor fusion based on these sensors, all of which are open for development.



Main Functions:

- 1. ROS Basic Cognitive Learning**
- 2. Basic Data Analysis for Intelligent Robots**
- 3. Chassis Program Protocol Control**
- 4. RC Model Remote Control Usage**
- 5. Sensor Fusion Calibration Application**
- 6. Odometer IMU Data Visualisation**
- 7. AI Visual Recognition**
- 8. RTK Outdoor Integrated Navigation**
- 9. Autoware Framework Analysis**
- 10. Point Cloud Data Processing**
- 11. Laser Mapping and Path Planning**
- 12. ROS_QT Integrated Operating Interface**



Product Parameter

Movement Mode	Ackermann front-to-rear wheel drive
Dimensions (L*W*H)	1535*810*465 (mm)
Maximum Speed (Empty Load)	2.4m/s
Chassis Load	200kg
Self-weight	110kg
Climbing Ability (unladen)	25%
Obstacle course (vertical steps)	8cm
Navigation Method	3D SLAM laser navigation, RTK navigation
Positioning accuracy	$\pm 10\text{cm}$
Battery Capacity	48V 20AH Lithium-ion (Li-ion)
Control Mode	CAN communication
Supported Systems	Ros, Ubuntu
Sensors and accessories	<ul style="list-style-type: none"> • 16-line 3D laser radar • RTK positioning module • Navigation industrial control computer • Depth camera • 15.6-inch display screen • ROS high-precision inertial measurement unit (IMU-Sealand) • Anti-collision bar

