

Intelligent Networked Mobile Robot (AMR-P1)

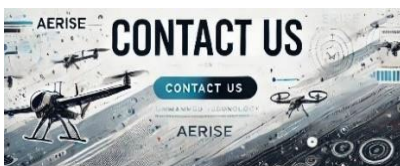
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The AMR-P1 series of intelligent navigation mobile robots is based on the PT-01Pro series mobile platform, a four-wheel differential model that supports four-wheel differential, in-place rotation, and other modes. Its simple motion control modes make it easy to quickly learn and practical. This series of intelligent navigation robots is also equipped with a 3D lidar (16-line lidar), a depth camera, a high-precision IMU module, a high-precision differential RTK module, and a high-performance computing board. Based on these sensors, our company has developed algorithms for 3D laser navigation, RTK navigation, vision, and laser multi-sensor fusion, 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. 3D Laser Mapping and SLAM Technology**
- 6. Topic Data Curve Display**
- 7. ROS Sensor Function Package Usage**
- 8. Motion State Visualisation**
- 9. Sensor Fusion Calibration Application**
- 10. Odometer IMU Data Visualisation**
- 11. AI Visual Recognition**
- 12. RTK Outdoor Integrated Navigation**
- 13. Autoware Framework Analysis**
- 14. Point Cloud Data Processing**
- 15. Laser Mapping and Path Planning**
- 16. ROS_QT Integrated Operating Interface**



Product Parameter

Movement Mode	Four-wheel differential motion model
Dimensions (L*W*H)	995*715*740 (mm)
Maximum Speed (Empty Load)	1.2m/s
Chassis Load	80kg
Self-weight	80kg
Climbing Ability (unladen)	15°
Obstacle course (vertical steps)	10cm
Navigation Method	3D SLAM laser navigation, RTK navigation
Positioning accuracy	± 10cm
Battery Capacity	48V 40AH Lithium-ion (Li-ion)
Control Mode	RS232 serial port 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 • Recharge module (optional)

