

ZYRA SERIES

The Zyra AMR series provide efficient handling for a variety of trolley types. Its compact body easily navigates narrow paths, carrying loads of up to 500 kg without any need for modifications, making it perfect for tight and confined environments.



BASIC INFORMATION

Model Number	ZYRA-S-TS-05
Base Dimension	Length: Body: 1194 mm Width: 504 mm Height: 1944 mm
Lifting Payload	500 kg
Load Surface	Length: 680 mm Width: 380 mm
Lifting Speed	18.5 mm/s
Ground Clearance	20 mm

DRIVING AND NAVIGATION

Driving System	Steering Drive
Navigation System	Natural Feature Navigation With Marker for precision
Navigation Direction	Forward, Reverse, Turning around centre of two caster wheels
Motor Type	DC Brushless Motor with Closed Loop Speed Control
Suspension	Passive
Brake	Navigation: Electric Brake Parking & Emergency Stop: Electromechanical Brake
Minimum Turning Radius	1005 mm
Minimum Width for Pivoting	2010 mm
Minimum Safety Clearance of Width	500 mm • Based on EN1525 • On both sides of robot
Minimum Safety Clearance of Height	2100 mm • Based on EN 1525 • Above robot • May change according to payload dimension



PERFORMANCE

Maximum Speed	0.9 m/s (3.2 km/h) • With rated payload • Travelling max speed with rated payload (on site) is recommended to undergo Risk Assessment as well
Acceleration	0.35 m/s² With rated payload
Stopping Accuracy	Laser Sensor (Natural Feature): ±50 mm, ±2° Laser Sensor (Marker/Docking): ±10 mm, ±1° • Speed before stopping: 0.13 m/s (8 m/min)
Traversable Gap	3 mm
Traversable Step	3 mm
Maximum Gradeability	5% (2.86°) • Without curb • With rated payload • Permissible ramp is to ensure safety, although robot might be able to climb ramp with more than stated value, but doing so will jeopardize robot's safety compliance

POWER

Running Time (90% to 10%)*	8 hours With rated payload
Charging Time (10% to 90%)	2 hours
Charging Time : Running Time Ratio*	1 : 4 With rated payload
Charging Method	Manual Charge: Through cable (Safety brake will be triggered) Auto Charge: Dock charging through charging station
Battery Type	LiFePO4
Battery Weight	24 kg
Battery Voltage	51.2 V
Battery Capacity	40 Ah

* To be confirmed.

INTERFACE

Operating System	Standalone (NavWiz) / Fleet Management System (DFleet)
Language	English
User Interface	7", 1024x600 IPS HDMI Capacitive Touch Monitor Physical Buttons
Communications	802.11 a/b/g/n, 2.4GHz / 5GHz WiFi Open WiFi WPA & WPA2 Personal WPA & WPA2 Enterprise
Central Control System	IPC Intel i5

**SAFETY FEATURE**

Emergency Switch	1 Units
Navigation Laser Scanner	1 Unit • Top with 360° field of view
Safety Laser Scanner	1 Unit • Front with 270° field of view
Obstacle Laser Scanner	1 Unit • Rear with 270° field of view
3D Camera	3 Units 1 at top front, 1 at top rear, and 1 at bottom front
Bumper	1 Units 1 at front
Indicator	RGB LED lighting at front
Speaker	2 Units 7cm, 5W speaker

ENVIRONMENT

Ambient Temperature Range	0 ~ 40 °C
Humidity	45 ~ 70 % @ 40°C (Non-condensing)
Operating Environment	Indoor usage only, with no excessive dust or corrosive gases
Floor Requirement	Level surface or concrete no water, no oil, no dirt
Floor Flatness	F_F25 Based on ACI 117 standard, it is the American Concrete Institute Standard for concrete floor F _F is flatness, F _L is the level. The higher F _F numbers represent flatter floors.
IP Class	IP 20

ZYRA-S-TS-05 Product Drawing

