



AMP-100

LOW PAYLOAD
AUTONOMOUS GUIDED MOBILE ROBOT

Product Overview

An Autonomous Mobile Platform (AMP) with self-mapping and self-navigation.

Easy to re-deploy for different applications and services by interchange of top modules.

Features & Benefits

- Differential drive wheels with casters mounted on independent linkages for uneven terrain
- Onboard charging and quick battery swap options
- Navigates bumps of up to 21mm height
- 13° terrain manoeuvrability
- Automatic path planning to prevent collisions
- Fleet management capabilities
- Centralized configuration and map management
- Smaller footprint and easy deployment
- Smart battery management
- Safety features with onboard ultrasonic sensors and LIDARs to detect obstructions and an E-Stop button to abort mission

Technical Specifications

Drivetrain

Two 6" thermoplastic driving wheels with a 48V, 85W motor

Four swivel caster driven wheels – 2 in front & 2 at the back

Differential steering for 0° manoeuvrability

Electromagnetic braking system

Linkage based suspension for ramp manoeuvrability

Physical Dimensions

Overall dimension – 600mm x 511mm x 256mm

Base clearance – 45mm

Weight (robot base + battery) – 20KG

Performance

50KG payload capability

0mm turn radius

Maximum linear speed of 0.6 m/s

Maximum angular speed of 0.6 rad/s

21mm bump clearing capability

13degree slope climbing ability

Battery

Nominal voltage – 48V

Capacity – 10Ah

Recharge time – 5Hr

Weight – 2.6KG

Operating time – 4Hr

Communication & Service Ports

RJ45 ethernet port – 1 for communication with different interfaces and 1 for service

USB-A port - 1 for communication with different interfaces (power only) and 1 for service

HDMI display port - 1 for communication with different interfaces

External Charging Port & Switch for ease of Charging & Powering on the Robot

Mapping & Navigation

2-D mapping from laser scan with a LIDAR

Localization based on odometry and laser scan

Automated navigation with obstacle avoidance using 2 LIDARs and 4 ultrasonic sensors

Live video stream with the Creative 3-D camera with the Intel Real-Sense technology

Joystick based motion control

Emergency master-off for safety & instantaneous abortion of missions

Ordering Information

Price

Contact

Phone