



SMART Mobile platform introduction

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1.Product Manual

1.1 Shipping List

Item	Part name	QTY	Remark
1	SMART Mobile platform	1	Standard
2	Automatic charging stand	1	Standard
3	Housing (with anti-collision bumper)	1	Optional

2.Product Description

SMART Intelligent Mobile Platform System (below abbreviation “SMART”) is a high-standard, modular commercial-grade mobile platform system newly developed by EAI. SMART has built-in a high-performance Slam navigation module and high-precision G4 lidar. The base adopts advanced power system suspension device, which has excellent stability ,ground adaptability, high-level obstacle avoidance and accurate navigation capability etc. It is suitable for corporate customers for secondary development and rapid deployment to commercial applications.

Main Features:

◆ Accurate mapping navigation capabilities

The positioning accuracy is controlled at the centimeter level, and the construction area can reach 5000m².

◆ Extraordinarily noiseless effect

The noise of standby and navigation is as low as 50 db

◆ Modular design

Modular design and easy maintenance.

◆ High standard electrical system design

The electrical system is designed to be safe and reliable according to the standard of high load and high power.

◆ Independent suspension

It adopts advanced power suspension device, the power wheel is centered, the wheel part adopts 2+2+2 layout, and 6 wheels are independently suspended.

◆ Endurance

Equipped with high quality and high capacity 30AH/24V lithium battery, no load life is about 10 hours; support automatic recharge function.

◆ Extraordinary obstacles avoidance abilities

◆ High load

The rated load is 30KG and the upper limit of the load is up to 70KG.

◆ High precision dual Lidars

With EAI high-precision dual Lidars, you can perceive double-layer space.

◆ Get started quickly

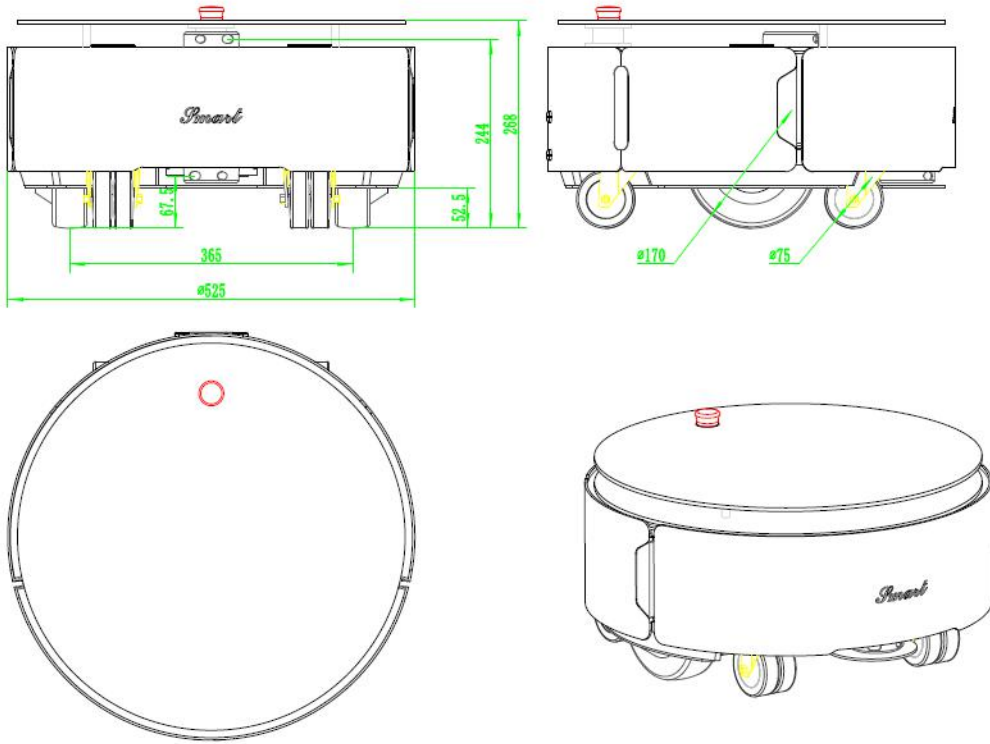
Provide a wealth of detailed technical documentation and application cases.

3.Specification

3.1 SMART Mobile platform system technical parameters

Product	
L	525mm
W	525mm
H	268mm
Universal wheel	3 inch
Drive wheel	6.5 inch Rubber wheel
Turning radius	None
Main structural material	Steel
Self weight	About 40kg
Best load weight	30kg
Max load weight	About 70kg
performance	
Max operating speed	1.0 m/s
Max obstacle height	20mm
Max obstacle width	40mm
Max climbing angle	10 degree
Mapping performance	

Map resolution	5cm
Max mapping square	5000
Parameter	
Lidar	YDLIDAR G4*2
Obstacle avoidance sensor	Ultrasonic Sensor module*5
Fall prevention sensor	Infrared sensor module*4
IMU module	PCB: MEMS Gyro, 3Axis accelerometer and Signal processing circuit
Battery	
Type	Power lithium battery
Capacity	30Ah/24V
Charging time	About 4.5 h
Charging pressure	29.4V
Charging current	10A
Protective function	Support over current, over discharge, short circuit protection
Standby power consumption	<25W
No load life time	10 h
Charging stand	
Automatic recharge	support
Direct charge	support
Motor	
Type	DC brushless hub motor
Nominal power	250W
Encoder resolution	4096
working environment	
Charging temperature	0~45°C
Discharge temperature	-10~60°C
Working humidity	30%~70%
Ports	
Power interface	24V, 12V
HW interface	LAN, USB
SW interface	SDK



SMART Drawing (3.2)