DAFANG AI

DF062

6-Meter Wall Finishing Robot

Robot Introduction



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Introduction

This is a **Four in One** robot, combining functions of grinding,skimming, sanding and painting. Utilizes the innovative SCA (Smart and Flexible Actuator) technology and combines visual autonomous driving, laser sensing, automatic spraying, polishing and automatic vacuuming, and 5G navigation technology, replacing manual labor working in high-dust environment, improving efficiency and safety.

Design

Customized large-scale scenarios and can reach 6 meters, modular design can be disassembled into three core modules: chassis, lifting system, and gimbal, enables quick assembly and disassembly, reducing the overall volume and weight requirements during transfer, lowering transportation costs and manpower demands.

Application

For factories, warehouses, classrooms, office buildings, carparks and other structures with a height ranging from 0 to 6 meters



Features

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■ 8 aixs

The robot can move in 360 degree, working height controlled by lifting, construction range controlled by robot's arm can pitch, move, and rotate, construction process controlled by modules.

■ L3 auto-drive

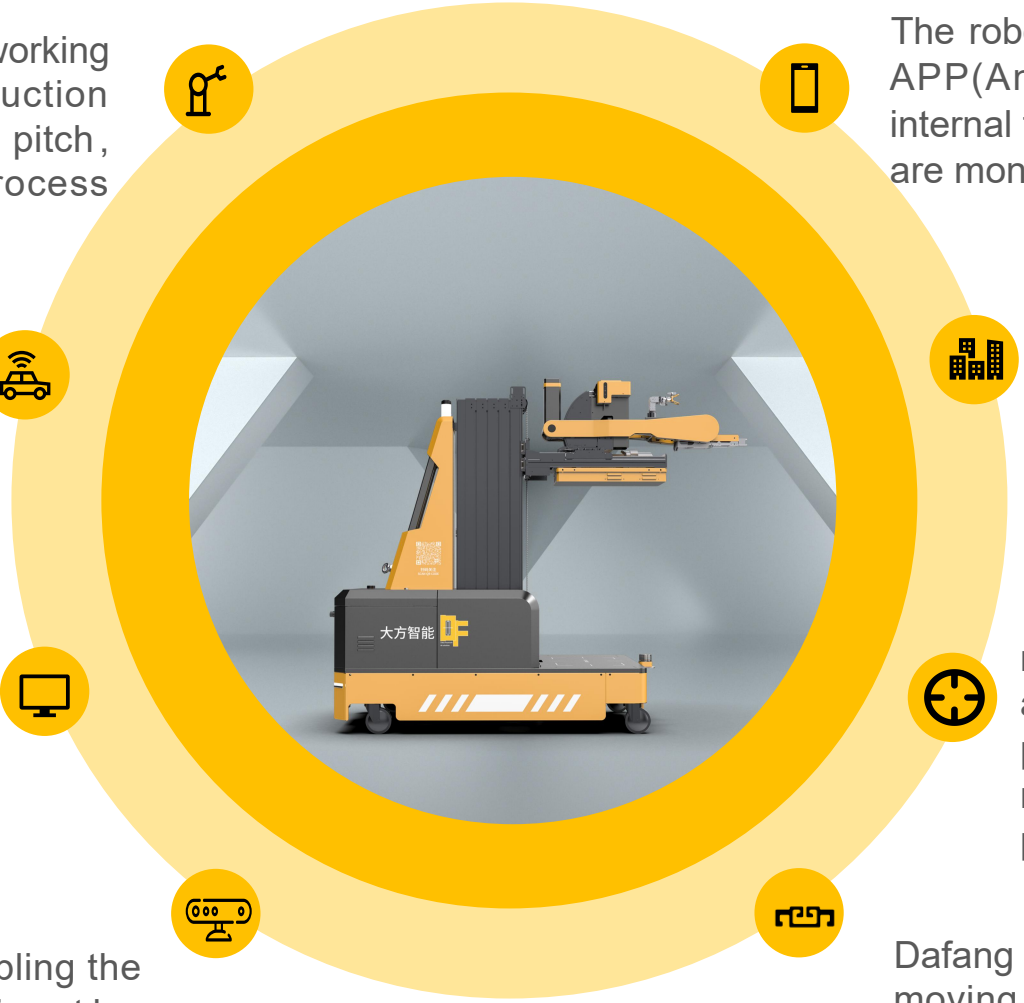
Autonomous driving operations based on laser radar and visual cameras, automatically detect obstacles, and issue warnings.

■ Digital Cloud Services

Manager can monitor the robot's real-time location, status, work progress by APP and Portal, which helps project management evolves towards a more visual and digitized approach.

■ Voice Alert

Multi-sensor information fusion, enabling the robot to autonomously perceive the surrounding environment, provide alerts to assist manual judgment in complex scenarios, and remind users of remaining paint levels.



■ APP control

The robot operation is wirelessly managed with APP(Android or Tablet). Battery level and internal temperature and humidity of the chassis are monitored and displayed simultaneously.

■ Multi-function

Simply replacing the operation module, it can grinding, skimming, sanding, and painting, offering intelligent and efficient performance.

■ SLAM Navigation

Utilizing laser radar ranging, inertial measurement unit sensor and SLAM algorithm, the robot achieves high-precision localization by constructing map. It efficiently plans operational path based on datas and layout.

■ AGV auto balance

Dafang develop auto balance technology while moving, even in complex environments and uneven sites, robot can work stable and effiently.

Specifications (*Data from DaFang AI lab)

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DF062 Specifications

Specifications	Performance Indicators
Robot Weight	≤300KG (661.39lb)
Robot Size (L*W*H)	1665*860*1726mm (65.6in*33.9in*68in)
Power Supply	Plug：220V 13.6A/Battery
Obstacle Clearance Height	≤25mm
Climbing Height	≤25°
Crossing Width	≤64mm
Movement Speed	≤400mm/s
Positioning Accuracy	±10mm

Concrete Wall Grinding Parameters

Grinding Wall Hardness	C15-C70 concrete wall
C40 Grinding Speed (2mm/depth))	≤30 ㎡/h
Grinding Power	≤2.4KW
Maximum Depth Grinding	≤5mm

Painting Parameters

Paint Capacity	External 20L paint bucket, replaceable and refillable
Paint Spraying Height	0-6200mm
Painting Efficiency	≤150 ㎡/h
Spraying Pressure	8-20mpa

Skimming Parameters

Putty Capacity	External material feeder, can be added
Skimming Height	200-5250mm
Skimming Efficiency	≤50 ㎡/h
Spraying Pressure	8-20mpa

Putty Wall Sanding Parameters

Putty Wall Sanding Height	300mm-5250mm
Sanding Speed (0.1mm~0.5mm/depth)	≤60 ㎡/h
Sanding Power	≤800W
Sandpaper	60 mesh – 320 mesh



Product Model

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Wall Finishing Robot (Main Body)



Working Modules



Concrete Wall Grinding Module



Putty Wall Sanding Module



Skimming Module



Painting Module

Equipments



Material Feeder



Follower(optional)

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