



*Gemini*Series

# Gemini Industrial Sweeping Robot Product Introduction



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# DEVELOPMENT COURSE

## Product Categories

Gemini 



TVX new generation of cleaning robots is named after the zodiac sign "Gemini," drawing inspiration from its agility and wisdom. By integrating cutting-edge technology and exceptional design, Gemini Robot brings an unprecedented level of efficiency and intelligence to the cleaning industry.

Quick thinking. Swiftly adapt to complex environments. Relying on its powerful intelligent system, it can efficiently complete cleaning tasks.

Equipped with advanced sensors and intelligent navigation systems, it can move flexibly through corridors and adapt to various cleaning scenarios. Whether in warehouses or factories, Gemini can handle tasks with ease. It is powered by self-developed intelligent algorithms that enable it to autonomously plan the optimal cleaning routes, efficiently covering every corner and ensuring no area is left unclean.

Gemini is design for industrial and commercial scenarios cleaning such as warehouses, factories, schools, and commercial areas.

Gemini—agile and intelligent, the new star of cleaning, ushers in a new era of cleaning.



01

### Aries Series Ride-on Floor Scrubber&Sweeper

Aries550/700/860/1000/1400/1400Plus



02

### Gemini Series Robot Sweeper

Gemini35



03

### Taurus Series Walk-behind Scrubber

Taurus500/660/860



04

### Leo Series Ride-on Sweeper

Leo30/60/75



\*Note:

Scrubber dryer: defined by cleaning width (unit: mm)

Sweeper: defined by cleaning width (unit: inch (in), 1 mm = 0.0394 inch)



# 53 MINUTE ELEGANT





## Market Positioning

The Gemini robot is mainly positioned in the industrial automatic cleaning market, especially for the cleaning needs of automated warehouses, production plants and industrial sites. It aims to provide efficient and automated cleaning solutions, reduce manual cleaning costs, and improve workplace safety.



## Target Customers

Gemini's target customers are mainly logistics warehousing, construction sites and industrial companies. It is particularly suitable for places that require long-term cleaning, such as warehouses, production lines, bottling plants, hazardous material storage rooms, and decoration and renovation. These customer groups usually seek to reduce cleaning costs, improve employee health and safety, and reduce environmental impact.



Factory

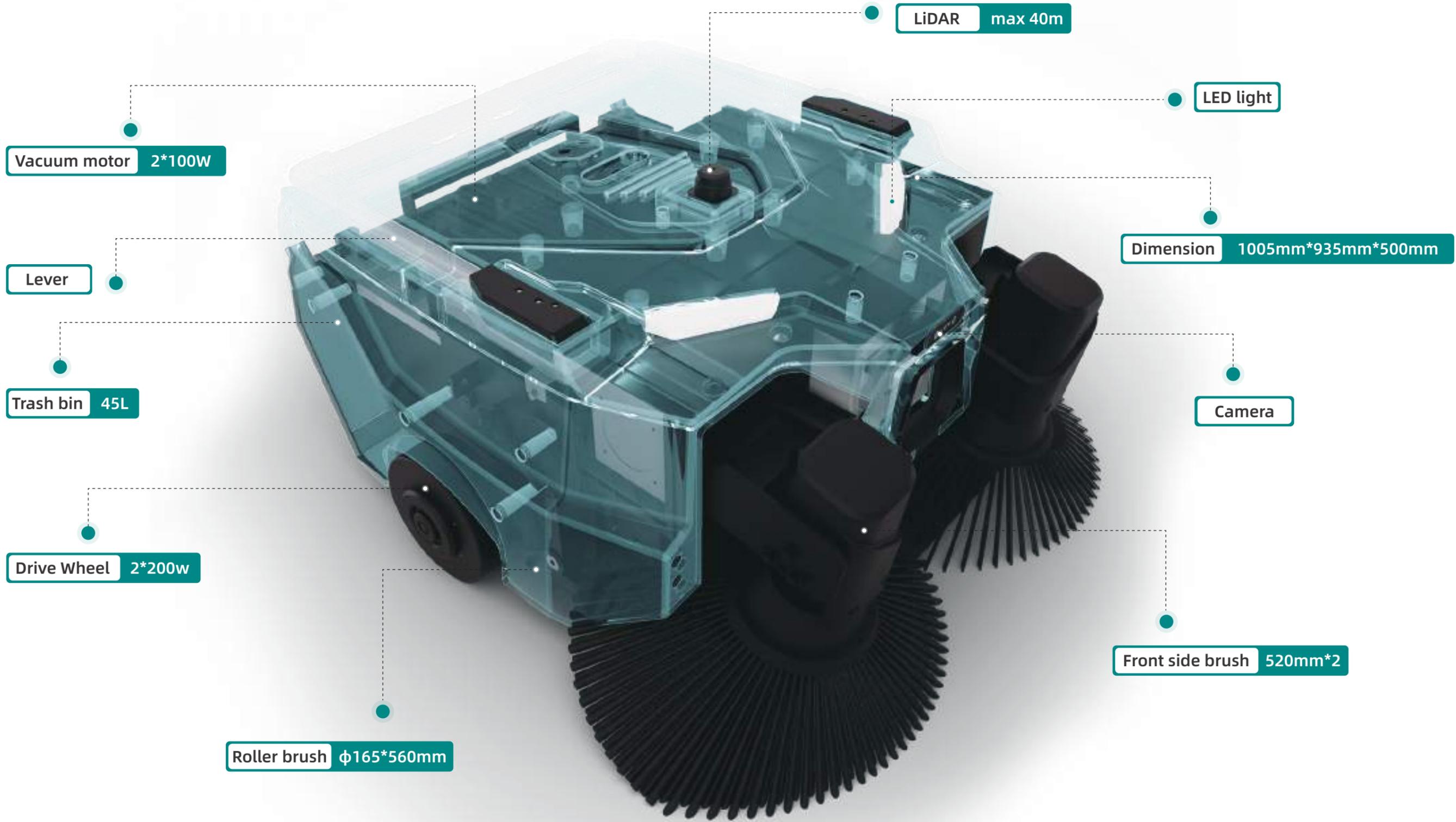


Building Construction



Warehouse

# Structural function analysis



# Warehouse



## Front shovel garbage collection board

The garbage entrance of the Gemini chassis is designed as a sloped shovel structure, which separates the dust box entrance into two entrances to collect garbage. Large garbage is rolled into the dust box from the upper opening through the movement of the side brush mechanism, and dust or granular garbage is sucked into the dust box through the movement of the roller brush mechanism of the chassis. This two-bin design is more conducive to the robot swallowing larger volumes of garbage such as wood blocks, metal debris, and construction waste in industrial scenarios.

## Integrated shaft roller brush

Gemini's roller brush structure uses brushless integrated shaft roller brush motor, which saves the robot's motor space from a structural point of view, giving limited space to the dust box. The brushless direct drive motor speed reaches a maximum of 200 rpm, and the 560mm roller brush is close to the roller brush width of a medium-sized sweeper. The more compact structure achieves a more powerful cleaning ability. At the same time, when replacing the roller brush after sales, the structure only needs to remove the dust box for quick replacement, less disassembly, making it easier for users.

36v/120w

Roller Brush Motor

200 RPM

Brushless direct drive motor speed



40CM

40CM

# logistics



## Main Brush Structure

Gemini is different from the main disc brush or roller brush cleaning structure of traditional sweeping robots. It has a side brush with higher power and longer bristles (480mm\*2 bristles) as the main brush. It collects garbage quickly through faster forward operation and a front shovel garbage collector.

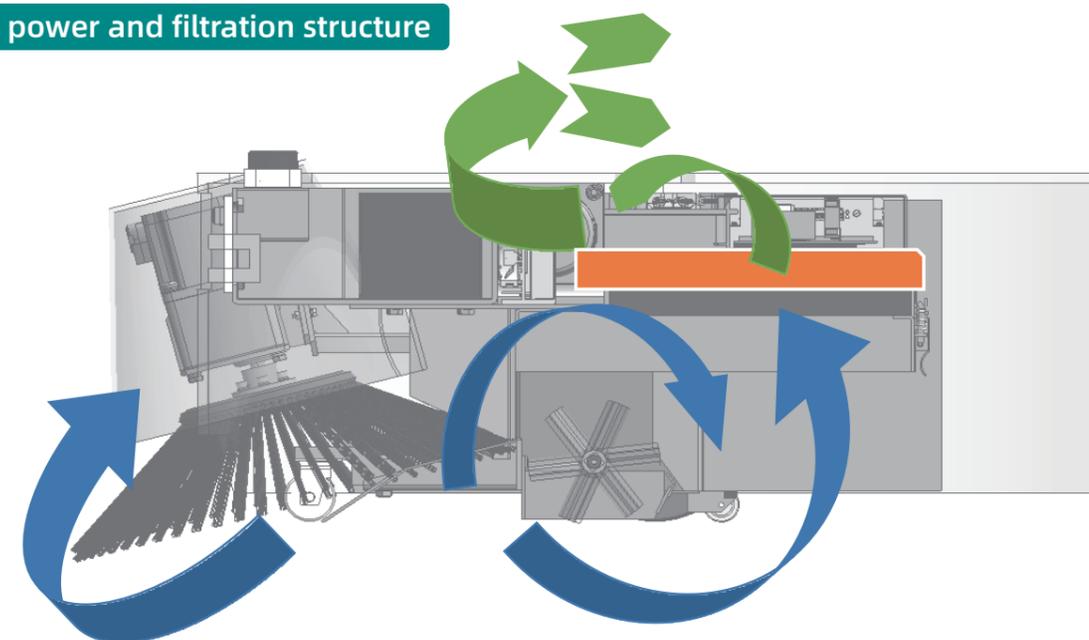
## High Power Vacuum Motor

The dust reaches the dust box through the roller brush, and the vacuum motor forms a suction pressure difference in the sealed cavity above the flat filter. The polluted air passes through the filter and is discharged through the air outlet of the vacuum motor, and the dust is filtered and left in the dust box. The dust box of this structure is connected to the inlet. This machine uses two 100w vacuum motors to achieve better suction discharge.

## HEPA Filter

According to the needs of different industrial scenarios, Gemini provides flat filter cotton or high-level HEPA filter system, which can effectively filter small particles in the air with a filtration efficiency of more than 90%.

## Air power and filtration structure



# Factory

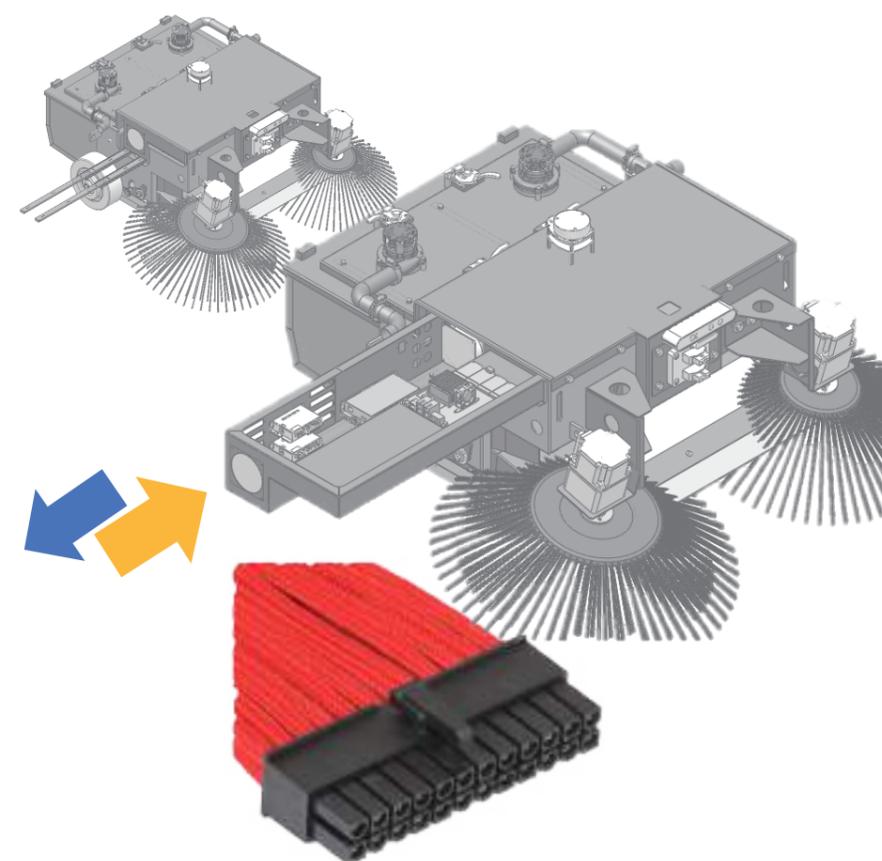


## Pull-out electrical box

Taking into account the robot's complex wiring and installation, as well as improved modularity and convenient after-sales, Gemini is designed with a pull-out electrical box. The replacement of all control components is concentrated in the drawer box, and faulty parts can be replaced by simply plugging in the wiring harness.

## Integrated wiring harness & Quick connect mechanism

Wiring harness modularity is the focus of robot industrial design. Gemini draws on the design of industrial server integrated wiring harness quick-connect/docking sockets, and uses electrical flat wires for the construction of power and weak current. It adopts a fool-proof design, which makes the original machine wiring work easy for end users.



# Building Construction



## Industrial wireless remote control

Gemini can be equipped with an industrial wireless remote control to remotely control the robot to return or operate in areas where people cannot enter. The remote control uses a transmission frequency that meets regulatory requirements (including 315MHz, 433MHz, 868MHz, 2.4GHz, 5.8GHz, etc.), high sensitivity (above -110dB), and high anti-interference to ensure the reliability of communication and avoid interference.

## Traction towing hook

Gemini has designed a telescopic lever structure at the rear of the dust box to facilitate manual pushing of the robot during transportation or when there is no electricity.



APP



Gemini 35	Unit	Parameters
Dimension	mm	1005*935*500
Roller Brush	mm	φ165*560
Maximum Speed	km/h	3.6
Working Efficiency	m <sup>2</sup> /h	2100
Cleaning Width	mm	900
Dual Side Brush Width	mm	990
Trash Can Volume	l	45
Filter Area	m <sup>2</sup>	1
Drive Motor	v/w	2*36/200
Roller Brush Motor	v/w	36/120
Vacuum Motor	v/w	2*36/100
Side Brush Motor	v/w	2*36/100
Battery	v	36v Lithium-ion
Maximum Climbing Grade	%	10