

Micro Drive Motion for Vacuum Cleaners Leads the Next Evolution of Smart Home



Los Angeles, Aug 9, 2020 ([Issuewire.com](https://www.issuewire.com)) - ZHAOWEI Machinery & Electronics Co., Ltd. has launched the microdrive motion system for both [cordless handheld vacuum cleaners](#) and [robot vacuum cleaners](#). Together with manufacturers, ZHAOWEI optimizes the motor structure of the vacuum cleaner, which realizes better intelligence and leads the next evolution of the smart home.

Nowadays, the rising household disposable income levels coupled with the increasing consumer awareness about health & hygiene especially in the post-epidemic era drives the household vacuum cleaners market growth. *Household Vacuum Cleaners Market Size* shows that its market size exceeded USD 20 billion in 2019 and is estimated to grow at a CAGR of over 6.5% between 2020 and 2026. The major brands in the vacuum cleaner market are competing with each other. Only those products with advanced technology will be recognized by the market, which will turn the challenge into an opportunity. As a proactive promoter of innovation, ZHAOWEI empowers the vacuum cleaner industry to realize intelligence, convenience and powerful performance.

“Keeping the floors clean has never been easier with this microdrive solution for robotic vacuum cleaners.”

The global robotic vacuum cleaners market is anticipated to rise at a considerable rate during the forecast period, between 2020 and 2029. The change in lifestyle, increased disposable income, rapid urbanization, and growing population and rise in purchase power are the other factors which boost the market growth. But the main pain points of current robot vacuum cleaners lie in uneven quality, random

path-planning and difficulty in cleaning dead corner and stubborn stains. Most of them emphasize the function of cleaning rather than suction, thus bringing poor cleaning effect and user experience.

ZHAOWEI is firmly committed to the design of [vacuum cleaner motor](#) and the development of gear tooth shape. As for the moving part, there is a driven steering wheel on the front and a driving wheel on each side, controlled by the motor. The structure of the wheel is optimized to make the wheel have better contraction ability and increase torque to make the wheel move more smoothly even in a narrow space. Sufficient climbing ability is also achieved. It will move according to the direction and speed controlled by micro drive solution with the flexible response and fast information transmission once receiving the signal, which can effectively avoid the collision. As for the cleaning structure, it is mainly composed of a vacuum cleaner and a rotating brush driven by a motor. ZHAOWEI adjusts the structure of the main brush gearhead to prevent motor damage from hair winding and greatly reduce noise. Moreover, it adopts DC brushless motor for robotic vacuum cleaners which features high efficiency, high torque, compact size, high control accuracy and long service life. All of them contribute to outstanding cleaning performance.

What's more, ZHAOWEI provides a [camera lifting module](#) for its visual navigation based on laser scanning technology as some high-end robotic vacuum cleaners are equipped with laser scanning technology. This makes up for the weakness of inaccurate distance measurement of the cleaner when exerting visual navigation technology.

[“Micro drive solution for cordless handheld vacuum cleaners makes cleaning lives easier.”](#)

Nowadays, most of the vacuum cleaners on the market operate by connecting the vacuum cleaner with the connector on its tube. This features poor flexibility, lack of flexible rotation and weak suction. Besides, the brush head will be easy to fall off and fail to install, resulting in unpleasant user experience. There is still much room for improvement in dust collection of cordless handheld vacuum cleaners based on research & development.

ZHAOWEI presents a novel approach of intelligence and automation to cordless handheld vacuum cleaners with fancy characteristics. It takes advantage of the rotating module to control the motor which further drives the blade to operate at high speed and simultaneously supplement intake fan with the air in the dust collection part. The instantaneous vacuum will be achieved in the dust collector, which results in the negative pressure gradient with the external atmosphere. Under the action of this pressure gradient, the dust and dirt inhaled with the air will be filtered through the dust filter to collect them into the dust tube. The larger the negative pressure gradient it is, the stronger air volume it will have, thus the greater the suction capacity it will get. In the whole process, in order to avoid the motor damage caused by hair winding into the driving device and make brush head durable, ZHAOWEI optimizes the structure of the main brush gear motor of the vacuum cleaner and simultaneously, edge-sweeping brush gear motor relies on the meshing of the driving gear and driven gear to transmit the motion and power.

By adding the high-torque planetary gear motor to the suction head of the brush, the suction power will be improved. At the same time, the soft velvet roller tackles hair easily, contributing to deep cleaning. 1-stage, 2-stage, 3-stage and 4-stage transmissions also satisfy different needs, so that the brushless motor in the vacuum cleaner takes pride in brilliant suction capacity and ideal performance. The combination of designs enables ultrastrong suction of cordless handheld vacuum cleaners and an endurable power source. It is a desirable solution that can be applied to most of the floors, floor tiles, floor mats, and short-haired carpets.

Step into the Future of Easy Fuss-free Cleaning

Modern households are becoming more computerized, thereby delivering suitability and reducing time spent on house chores. As one of the symbols, vacuum cleaners take the effort out of keeping the floors clean. “It is exciting to introduce such a convenient and powerful micro drive solution for vacuum cleaners. We are stepping into the future of easy fuss-free cleaning and it is our belief that it will lead the next evolution of smart home. We are always here to support you to become a major as well as a competitive player in existing and potential markets.” said the Product Director of ZHAOWEI.



Media Contact

Shenzhen ZHAOWEI Machinery & Electronics Co., Ltd

sales@zwgearbox.com

+86-755-27322645

Building 101, No. 62, Yanhu Road, Yanchuan Community, Yanluo Street, Bao'an District, Shenzhen, 518127, Guangdong, China

Source : ZHAOWEI Machinery & Electronics Co., Ltd

[See on IssueWire](#)