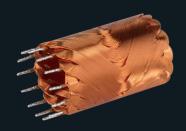


# Drive systems for e-mobility, the automotive industry and robotics



# Change the world with a reliable partner

At maxon, we believe that outstanding engineers and technicians can make a positive impact on the world. This is why we support them in their efforts to go off the beaten path and provide the perfect drive system for their ideas.



# Stay on the right track with maxon

Electric drive systems have a major impact on our everyday life and mobility. More and more people are using e-bikes or electric scooters for commuting and recreation. Whether on the road, in the logistics center or under water, maxon's mecha-tronic systems make things move reliably and efficiently.

Our systems consist of motors, gearheads, sensors, batteries and controllers and constitute the basic building blocks for complex applications. To meet the high demands of our customers, all components are matched to each other by the maxon specialists. In the development of our competitive system solutions from a single source, the focus is on flexibility, efficiency and quality.

All components are matched to each other by the maxon specialists.



#### **Automotive**

- → Dynamic suspension control (passenger cars)
- → LiDAR systems (remote sensing technology for autonomous vehicles)
- → Brake by wire (e-brake)
- → SCR systems (exhaust gas treatment for diesel vehicles)



### E-mobility

- → E-Bike systems with customized maxon BIKEDRIVE solutions
- → Electric scooters and trikes
- → Electric wheelchairs and rehabilitation vehicles



## Logistics and robotics

- → Logistics shuttles
- → Mobile and autonomous logistics robots (AGVs)
- → Farm robots
- → Multi-axis lightweight robots
- → Collaborative robots (Cobot)



#### Maritime applications

- → Remotely operated underwater vehicles (ROVs)
- → Autonomous underwater vehicles (AUVs)

#### EPOS4

maxon's EPOS4 is the perfect motor controller for any task, from precise positioning to dynamic velocity control. The CANopen or EtherCAT interface enables smooth integration into maxon drive systems.





#### Wheel drive

The maxon wheel drive is a compact solution for AGVs and self-driving vehicles in intralogistics and outdoor applications.

#### Battery systems

maxon can make any application mobile, from autonomous robots to sporty electric scooters to hand-held devices. With the maxon Battery Management System (BMS), our specially developed battery packs are perfectly matched to drive systems.



# Environmentally friendly diesel motors – for clean air

Worldwide, the requirements for emission reduction of commercial vehicles and passenger cars are increasing. SCR-Systems (SCR = selective catalytic reduction) enable the compliance with current standards. The drive system consists of a customized brushless flat motor plus electronics. This system solution accurately regulates the urea supply for treatment of diesel exhaust gas, which triggers a chemical reaction that breaks down toxic nitrogen compounds. The system is primarily used in trucks and is an important contribution from maxon to improve the global climate.



Open design for excellent heat dissipation at higher speeds.

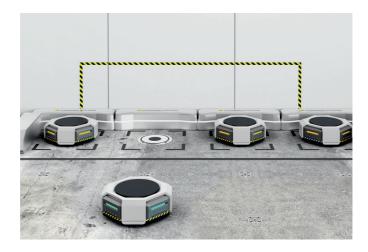


Brushless EC 45 flat motor and ESCON servo controller (special design).

- → Attractive price-performance ratio
- → External, multipole rotor for high torque
- → Open design for excellent heat dissipation at higher speeds
- → Reliable mass production

## Autonomous shuttles for green logistics

Our motors and gearheads perform a variety of tasks in the vehicles.



When storage space is at a premium, a clever and efficient logistics system is essential. Many warehouses function completely without human employees. Instead, shuttles and robots are working the shelves. maxon delivers drive systems for these shuttles. Our motors and gearheads perform a variety of tasks in the vehicles, such as steering the wheels or picking up and placing the containers. The BLDC motors stand out for their high power, extremely wide speed range, and a very long service life. maxon ceramic planetary gearheads are used in combination with the drives.

Brushless EC motor EC-i 52 motor combined with EASY encoder and planetary gearhead for high radial loads and an EPOS4 positioning controller.

- → High torque density
- → Extremely dynamic
- → Long service life



**Precision Drive Systems**