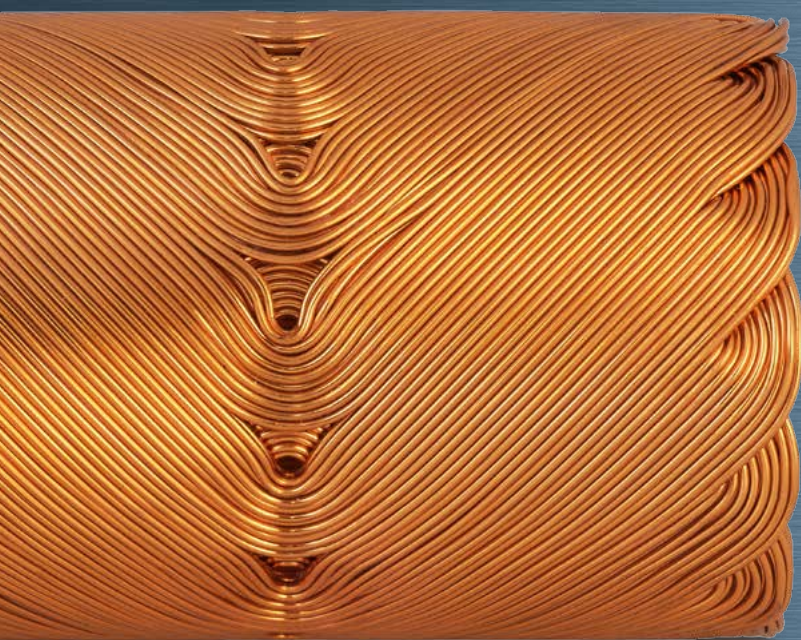


# When it really matters.

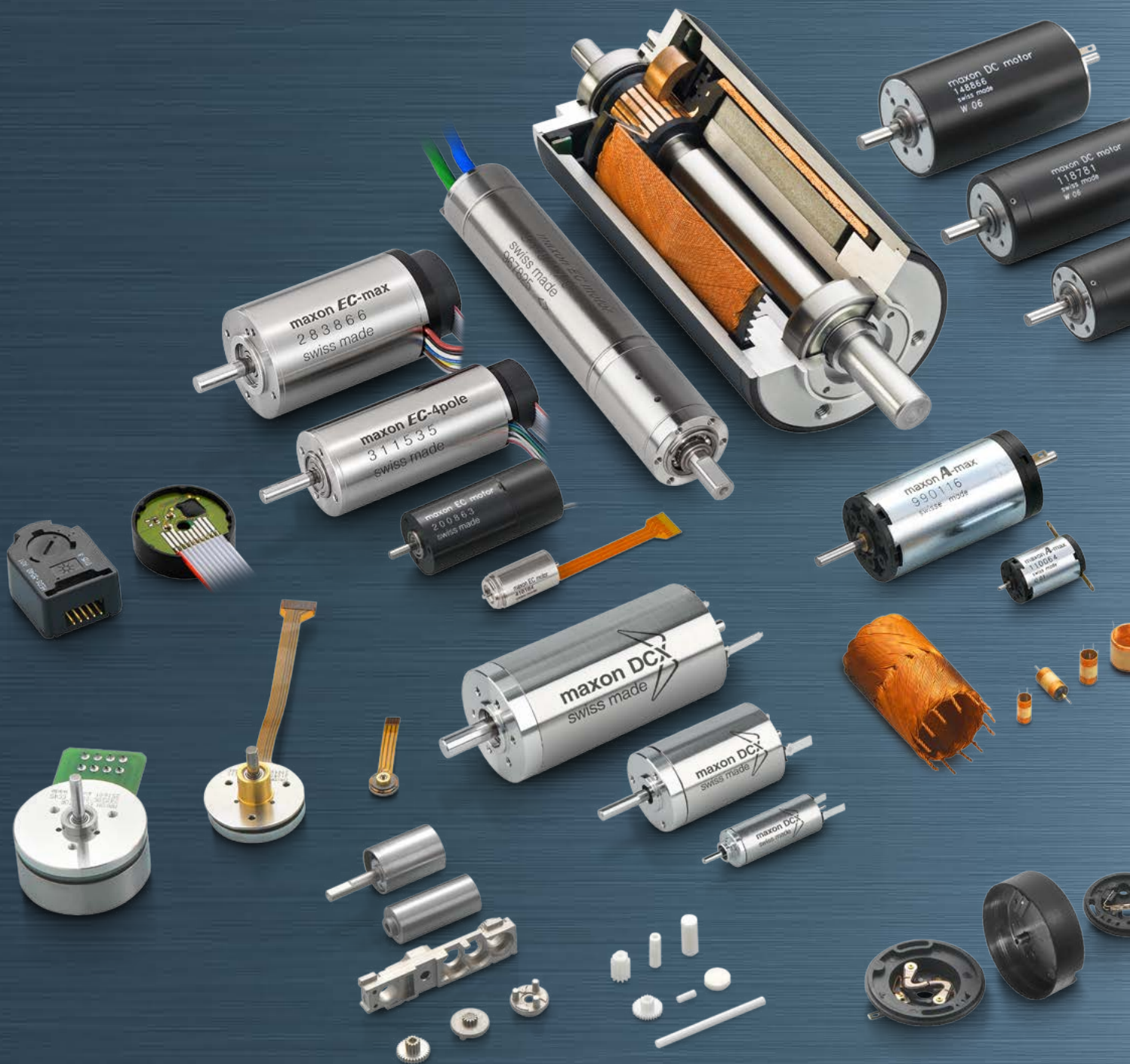
High Precision Drives and Systems.



[www.maxonmotor.com](http://www.maxonmotor.com)

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driven by precision



# Close to 100 %.

maxon's brushed and brushless DC motors perform at efficiencies of more than 90 %.

Maximum power packed into tiny spaces. Due to their special ironless winding technology, drives by maxon motor are characterized by:

- High acceleration
- Long service life
- Low power consumption
- Unsurpassed reliability
- Able to bear high overloads for short periods
- Excellent control properties

## One stop shop.

### DC and BLDC motors

Brushed and brushless DC motors up to 500 W.  
Diameter 4 to 90 mm.

### Gearheads and spindle drives

Planetary, spur and special gearheads. Compact spindle drives with steel and ceramic spindles.

### Sensors

Magnetic, optical, and inductive encoders, DC tachometers and resolvers.

### Controllers

4-Q PWM servo controllers, 1-Q EC amplifiers and position controllers.

### Ceramic components

Custom ceramic components and standard components such as ceramic axles, shafts, or spindles.



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# Founded in Switzerland.

**High precision drive solutions since 1961.**

maxon motor, founded in 1961, is a Swiss company with headquarters in Sachseln (Central Switzerland) with more than 2100 employees worldwide.

For more than 50 years, we have focused on customer-specific drive solutions, quality and innovation. As a result, our modular product range has constantly been expanded and now includes: Brushed and brushless DC motors up to 500 W, planetary and spur gearheads, special gearheads, spindle drives, sensors, servo amplifiers, position controllers, and high-tech ceramic components.



# Available worldwide.

## A global brand servicing local needs.

Our individual sales companies throughout the world provide localized and competent customer service. maxon motor has production sites at the headquarters in Switzerland, as well as in Germany, Hungary, and South Korea.

Machines and production lines developed in-house guarantee cost-effective manufacturing of large series. At the same time, this enables us to respond to your specific requirements – at any quantity.

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# **If maxon is inside, the best is inside.**

**maxon drives set the world in motion.**

Precision drives from maxon motor are used in a multitude of application fields. The most famous example comes is from astronautics. NASA's Mars rovers prove that maxon drives can perform their work with absolute reliability, even under the harshest conditions. Therefore, it should come as no surprise that high-precision drive systems from maxon motor are in wide use on Earth.

## Robotics

Precise, compact, efficient: These are the key requirements for a robot's drive concept. Motors made by maxon have no cogging torque and boast an efficiency of more than 90%. With special ironless windings, they provide high performance packed into tiny spaces.



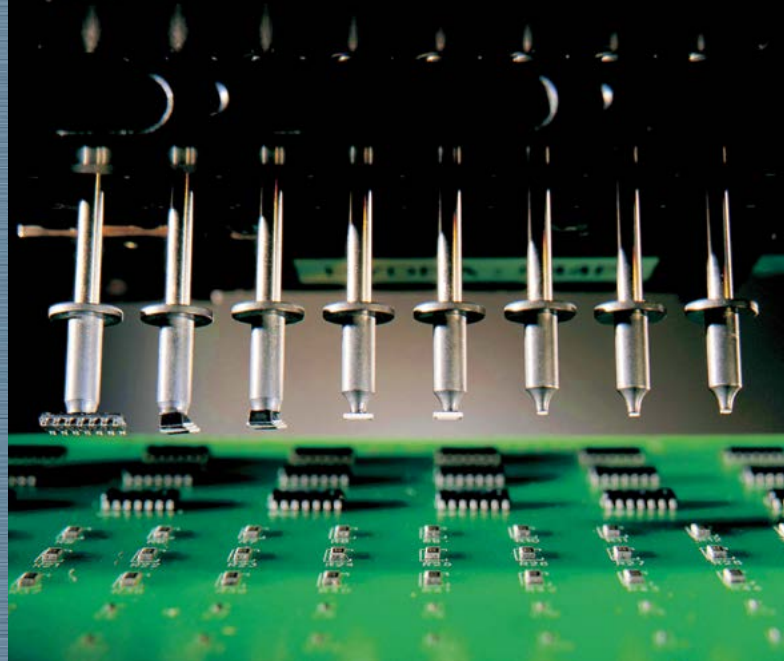
## Automotive industry

Electric motors by maxon are efficient, compact and robust. Our flat brushless DC motors are ideal for applications in the automotive industry.



## Industrial automation

Microdrives by maxon are designed to master demanding automation applications. They feature high power density, high torque density, fast acceleration, high efficiency and an extremely long operating life cycle.



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## Medical technology

Microdrives for pumps, prosthetics, hand-held tools and implantable systems. maxon DC motors are reliable, low-vibration, and sterilizable. They provide all these features yet maintaining high power density and efficiency levels.

## Safety engineering

The efficiency of maxon DC motors reduces power consumption so that batteries last longer. Precise, fast positioning tasks are easily achieved. The ideal solution for safety engineering.





## Aerospace industry

Brushed DC and brushless DC motors by maxon are resistant to thermal and mechanical shocks. With their long life span, high efficiency and compact design, the motors are well suited to the needs of applications in the aerospace industry.



## Inspection and Instrumentation

Mobile devices profit from the low energy consumption of maxon's brushed and brushless DC motors. Experience the precision and robustness of maxon drives.



## Consumer applications

Micromotors by maxon are precise and efficient. Their compact design and high performance make them attractive for consumer applications.



## Communication.

DC motors by maxon are precise, robust and efficient. They are free of magnetic cogging torque and are ideal for communication applications.



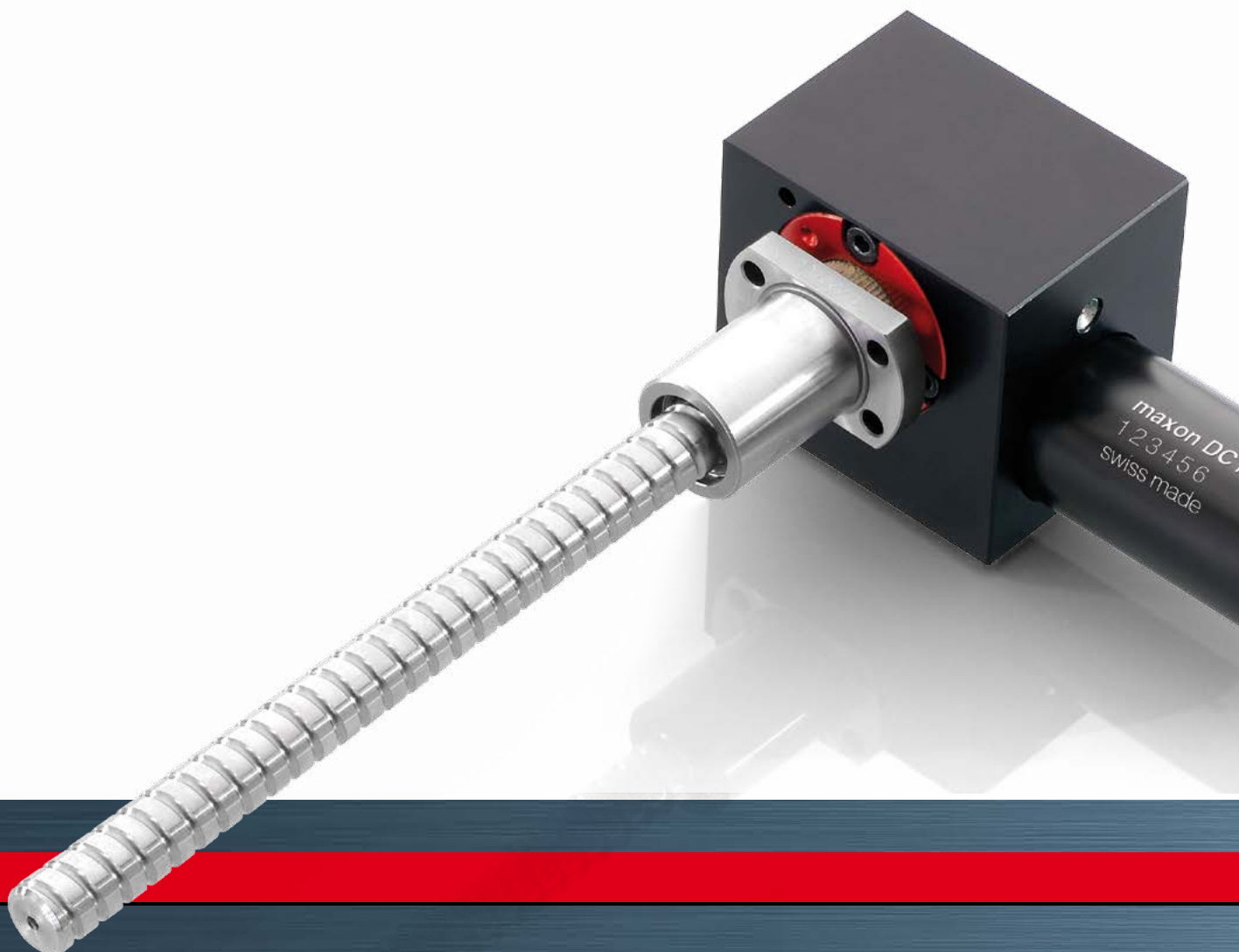
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# Custom drive systems.

**Together with you, our engineers develop the perfect drive solution for your application.**

In addition to the extensive standard range of products that form the maxon modular system, maxon also develops special drive solutions together with the customer. This includes modifying existing products, engineering add-on components, and completing new developments of drive units.



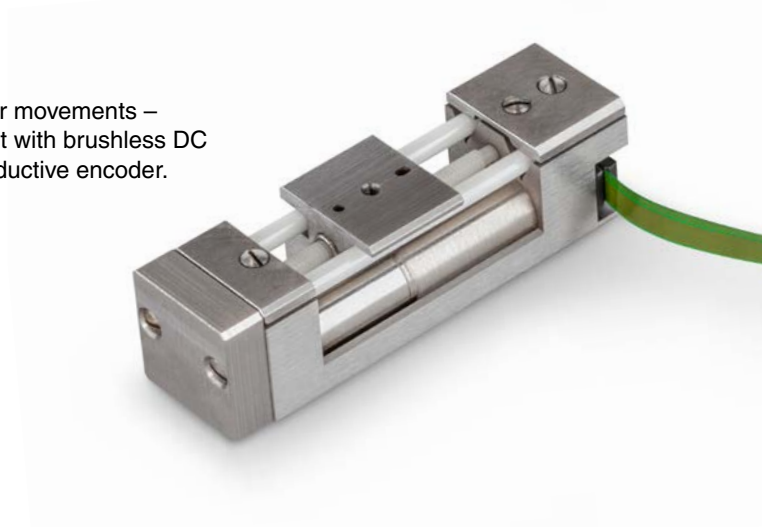
## Worm gear

Multi-stage gearhead with output shaft in worm design. Lightweight and reliable with a Ø15 mm motor.



## Ceramic carriage

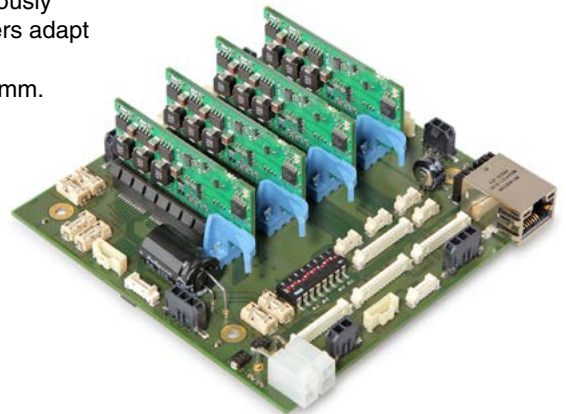
Ceramic carriage for precise linear movements – precise to a few  $\mu\text{m}$ . All-in-one unit with brushless DC motor, planetary gearhead and inductive encoder. Dimensions: 44 x 12 x 12 mm.



## Multi-axis system

Several axes have to be adjusted synchronously within a very small space. Modular controllers adapt to the environment.

Motherboard, multi-axis system: 110 x 110 mm.





# We are engineers. Dedicated to the develop- ment of drive technology.

## Quality with no compromise.

Development engineers and designers at maxon motor use only state-of-the-art calculation and configuration software. This enables us to develop customer-specific solutions quickly. Advanced qualification and risk assessment methods guarantee that all of our products are highly reliable and robust. Simultaneously, systematic process and product optimization programs enable us to provide our customers with more options for drive configuration - in shorter delivery times. An example are maxon DCX drives, which can be configured online.

Consistent standards on quality, safety, and procedures ensure that only premium products leave our factories. The business and production processes fulfill international standards such as ISO 9001 and ISO 14001. maxon medical has ISO 13485 certification and products for the aerospace industry have ISO 9100 certification.



# We know what we are doing.

## Flexible in-house production.

All important components of our maxon motor drive systems are produced in Switzerland, Germany, Hungary, and South Korea, on machines and manufacturing lines developed in-house. Our customers are guaranteed efficient and fast manufacturing of their products, whether in small or in large quantities, as well as maximum flexibility to meet special needs and requirements.

Our core areas of expertise include:

- Winding technology
- Standard and special gearhead engineering
- Encoder technology
- Electronics and systems technology
- Injection molding processes for plastics as well as ceramic and metal powder (CIM/MIM)
- Installation and automation technology
- Development / project management
- Quality management

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# A global network.

Everywhere in the world, maxon motor's sales engineers collaborate with customers to develop tailor-made drive solutions.

- **maxon Manufacturing Companies**

Switzerland (headquarters), Germany, Hungary, Korea.

- **maxon Sales Companies**

Australia, Belgium/Luxembourg, China, Denmark, Germany, Finland, Great Britain, India, Italy, Japan, Korea, the Netherlands, Norway, Austria/Hungary/Slovenia/Romania, Sweden, Switzerland, Spain, Taiwan, Czech Republic/Slovakia/Poland, USA.

- **maxon Sales Agents**

Brazil, France, Hong Kong, Israel, Canada, Malaysia, Russia, Singapore, South Africa, Thailand, Turkey.

For detailed contact information please visit [contact.maxonmotor.com](https://www.maxonmotor.com)



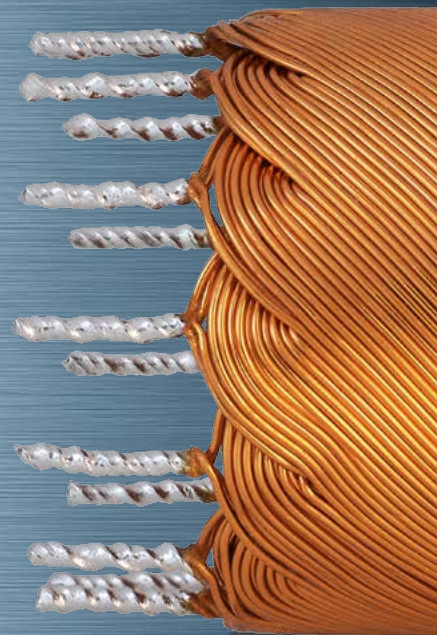
South Korea

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