



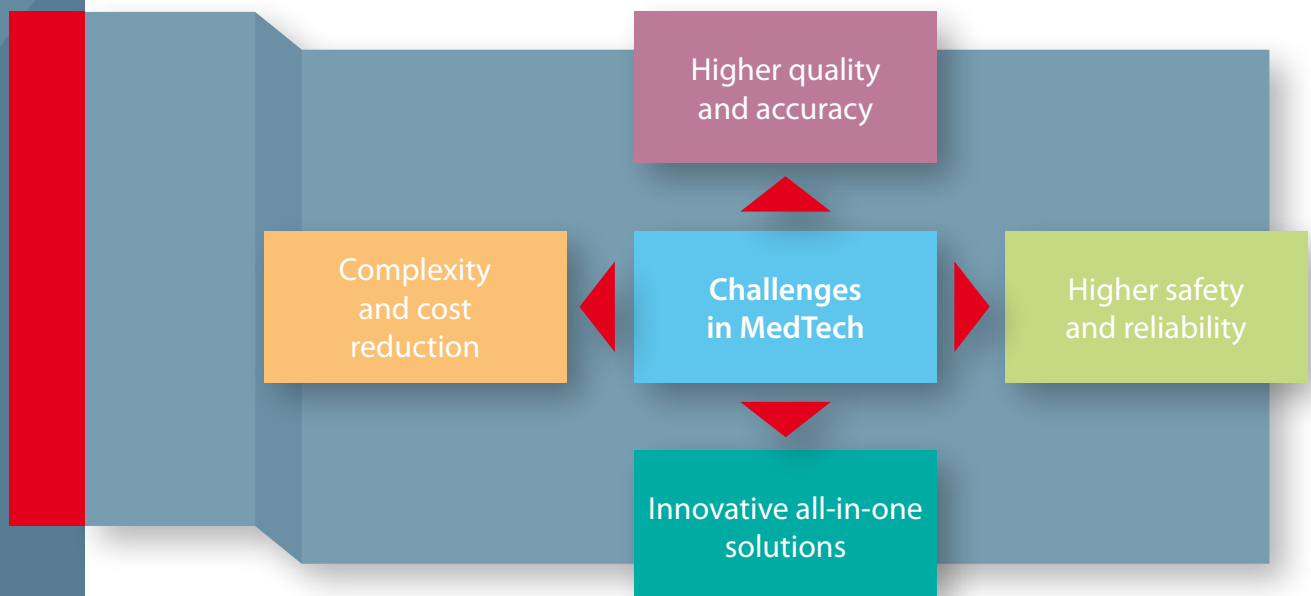
**Motion systems**  
for challenging **Diagnostics**  
and **Patient Care** applications



# Challenges in MedTech

During the last decade, scientific advances in biomedical technology have brought new, highly targeted diagnostic and therapeutic techniques. These are paving the way for a more personalized approach to healthcare, adapted to each individual in accord with his or her genetics. The demand is made all the more pressing by broader factors such as aging populations, rapid development of healthcare in emerging countries, and the emergence of new diseases. These changes will certainly bring substantial change to every aspect of healthcare and laboratory technique.

MedTech devices, used in medical and laboratory processes, must be highly flexible and productive to perform an increasing number of complex tests, and reduce demands on increasingly-short staff. This new trend is accelerating the technological innovation for ever smaller, more reliable, more efficient drive components. They have to facilitate the automation and acceleration of numerous tasks, increase the instruments and apparatus productivity, and enhance the quality and safety of care while lowering its cost. Managing successfully the development of such challenging machines require a cooperation with a system integrator, which can engineer and supply a tailored all-in-one solution.



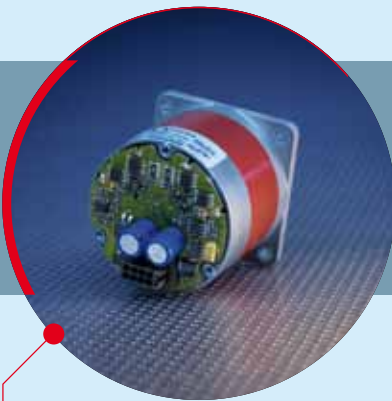


# Drive Systems

Whether in present-day traditional or forthcoming medicine, electric motors of instruments and appliances must be highly accurate, precise, dependable, quiet, and rugged. Sonceboz electric actuators guarantee unparalleled performance in the repetitive execution functionality required for **dosing, control, and positioning.**

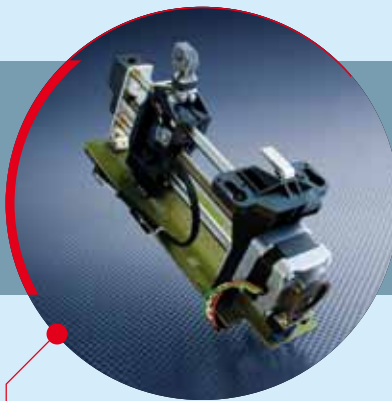
The packaging constraints and the increasingly complexity of a medical or laboratory device require extensive integration of components while encouraging the development of complete drive modules including motors, electronic controls, and sensors. Faced with this tough challenge, the thoughtful specifying engineer can reduce system complexity and cost while increasing dependability and robustness with brushless solutions and reliable mechanical construction as found in Sonceboz direct actuators.

## Our Solutions



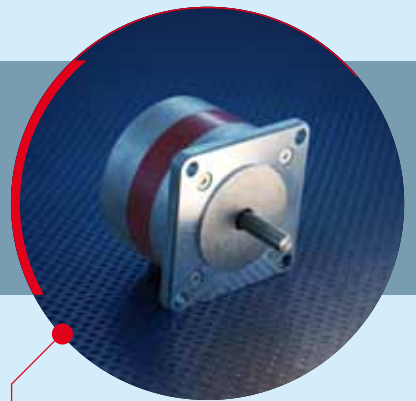
### LoadSense Control Technology

The newest generation of Sonceboz LoadSense electronic stepper motor control allows an optimal phase current required to charge. The advantages? **Low noise, reduced heating, and a size reduction of up to 50%.** Sonceboz LoadSense stepper motors are **guaranteed against step loss** and data from our integrated encoder can be transmitted and used in your safety concept, removing the need for an external optical encoder.



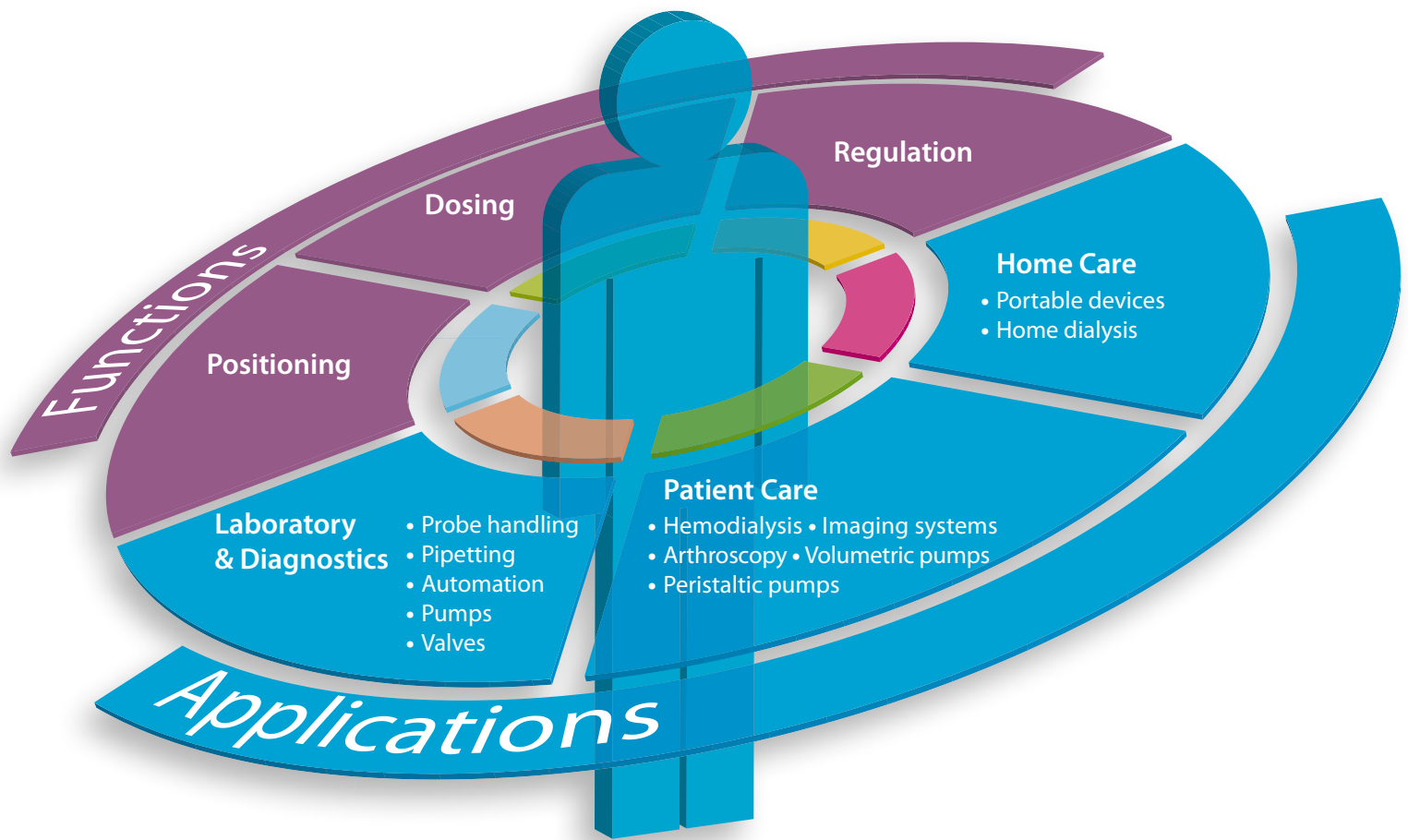
### Mechatronic System

Sonceboz' premier all-in-one mechatronic system is ideal for custom solutions. Our specialized expertise allows **fine tuning of each subcomponent to your specification:** interfaces, communication bus control electronics, sensors, and gearboxes. You get **unmatched precision and low noise** in an elegantly simple design, and **lowered system cost and complexity** into the bargain.



### Hybrid Motor

Sonceboz hybrid motors in NEMA sizes 17 to 34 deliver **high torque**—up to 9Nm—and **precise resolution at low speed.** A magnetic sensor can be integrated for accurate dynamic measurement of the angle, reducing package height by 20% compared to systems with an optical encoder. When paired with Sonceboz LoadSense electronics, the result is an **intelligent direct drive system** with the enhanced performance, efficiency, and dependability you need.



**Linear Actuator**

Sonceboz linear actuators are based on the stepper motor technology. Here is a proven solution, offering **robustness, accuracy** and a **force** up to 150 N in a **light, small package**. Upon request, interfaces can be adapted for greater freedom of design and **space savings**. Zero-return and other special variants can readily be supplied to meet your needs exactly.



**Slimline Stepper**

Sonceboz slimline technology brings you **ultra-small stepper motors**, featuring a torque up to 25 mNm. **Motor and gearbox** are integrated in a remarkably small, low-profile housing. The integral construction gives **high performance, precision, and accuracy with almost no noise**. Here is the ideal solution where space constraints and noise control are crucial.



**BLDC motor**

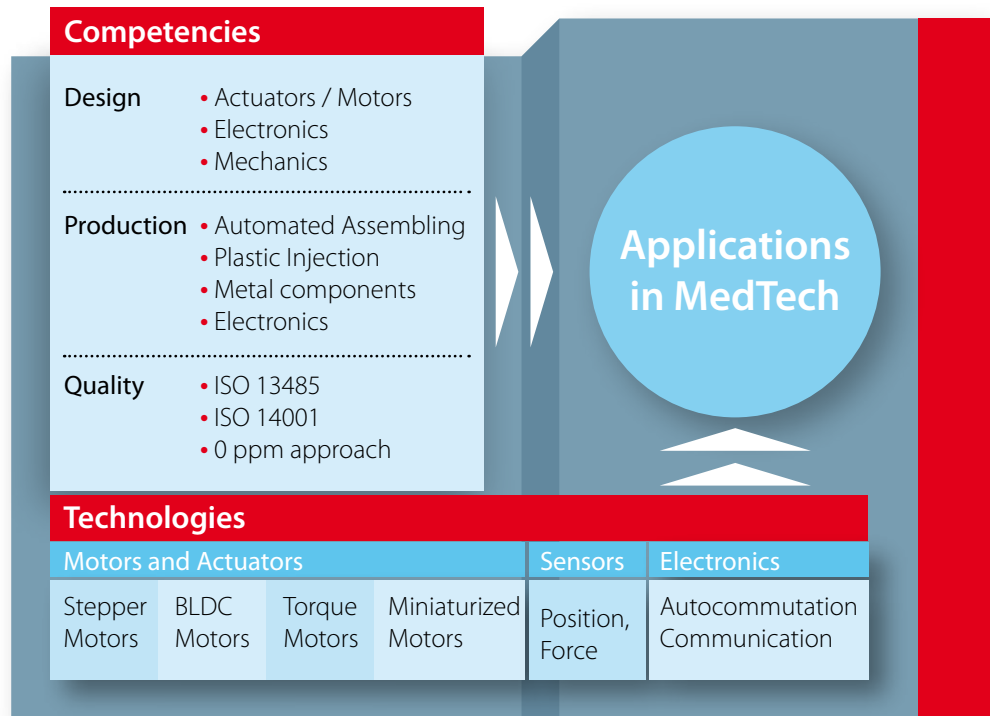
Sonceboz BLDC Motor with **integrated position sensors** benefits from an outstanding **power density** and **response time** that allow a dynamic positioning. Due to its high service life and robustness, **high reliability** is guaranteed. Thanks to the **facilitated controllability**, existing driver electronics can be used or alternatively built into the motor for optimum **product compactness**.

# Our expertise

Sonceboz has long been recognized not only for our expertise in mechatronic systems, but also for generating competitive advantages for our client partners. Our vigilant **anticipation** of market needs anchors our relentless drive for innovative, high quality solutions, which are **minimizing total cost of ownership**.

We express our expertise by concurrent implementation of mechanical technology, electronics, and software in mechatronic sub-system performance. These skills foster multi-disciplinary **design cooperation to bring you tailored solutions**. Our ruggedly reliable electromagnetic stepper or brushless motors are a product of our culture of 0 ppm, which in turn comes from our experience in the severe-duty service requirements of the automotive realm. Whatever the technology used, complete documentation of the development stages is guaranteed by our **ISO 13485 certified processes**.

Each design challenge is different, so the optimal solution must be unique every time. The flexibility and focus of Sonceboz' engineering teams play a fundamental role in the win-win partnerships we create with our client customers. Our wide range of technology and mastery of production and assembly techniques bring you a wide array of benefits - you get not only optimal performance from the actuators you buy, but also a hassle-free, highly knowledgeable supplier in Sonceboz.



... **Sonceboz - Demonstrated, proven expertise:**



## Your benefits

- *Outstanding performance and precision*
- *High system reliability*
- *Reduction of complexity and cost*
- *Fast time-to-market*
- *ISO 13485 certified processes*



## SONCEBOZ

### Motion systems

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Our core competencies consist of design, development and production of **mechatronic drive systems** and **electric motors** that operate in **harsh environments**. We are committed to improving safety, decreasing energy consumption and minimizing the impact on the environment. Our focus on **innovation, best in class quality** and **exceptional service** is our key to success for worldwide OEM customers and their suppliers.

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