Exoskeletons are literally on the rise. However, this is not a cause for alarm, but a reason for confidence, because they make many tasks much easier and less physically demanding. In addition to work-related aspects, exoskeletons can also be used sensibly in the medical field, for example as a walking aid for people who would otherwise no longer be able to move selectively or completely.

Exoskeletons can be used intralogistically for lifting heavy objects such as packages, pallets, machine parts. In addition, physically hard-working craftsmen will benefit in the future with strength-sapping processes such as overhead work.

With the combination of PikeOS, PikeOS for MPU and a system-on-a-chip (SoC) module from TQ Systems’ i.MX8 series, such as the TQM8Xx, embedded systems for exoskeletons can be conveniently realized. The TQM8Xx offers high flexibility, operationally reliable ECC memory, outstanding scalability of computing power with enough reserves for all eventualities, maximum energy efficiency, and digital signal processing (DSP) for voice control.
**PIKEOS SOFTWARE ARCHITECTURE**

The high flexibility, scalability, energy efficiency and operationally safe ECC memory make TQMa8Xx suitable for use in exoskeletons.

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**About TQ Systems**

As a technology service provider and electronics specialist, the TQ Group implements customized, innovative solutions for various industries – from development to production and other services to product lifecycle management. One focus is embedded processor technology: whether x86, Arm, QorIQ Layerscape or Power Architecture – the goal is to provide the latest processor technology in the form of embedded modules, SBCs, industrial PCs, modular solution platforms and finished systems. More information at [www.tq-group.com](http://www.tq-group.com)

**About SYSGO**

Founded in 1991, SYSGO became a trusted advisor for Embedded Operating Systems and is the European leader in hypervisor-based OS technology offering worldwide product life cycle support. We are well positioned to meet customer needs in all industries and offer tailor-made solutions with highest expectations in Safety & Security. More information at [www.sysgo.com/medical](http://www.sysgo.com/medical)