

STMicroelectronics and maxon Collaborate on Precision Motor Control for Robotics and Automation

- *Two leading names in motor control work together to ease development challenges*
- *Jointly created plug-and-play servo control development kit for drives, robotics and automation on display at sps 2019*

Geneva and Sachseln, Switzerland, November 25, 2019 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, is working with maxon, a leading precision-motor provider and a member of the ST Partner Program, to accelerate the design of robotics applications and industrial servo drives. The companies will demonstrate a jointly developed servo control kit at sps 2019 trade show in Nuremberg, November 26-28 (Booth 10.1/138).

The [EVALKIT-ROBOT-1](#) is a plug-and-play solution aimed to help users easily approach the world of precise positioning and high-end motion in servo drives and robotics. A maxon 100-Watt BLDC motor with built-on 1024-pulse incremental encoder is included in the kit, embodying the company's expertise in magnetic design in motors that ensures smoothness and balance to allow fine control even at low rotor speeds.

The servo control board supplied with the kit contains ST's [STSPIN32F0A](#) intelligent 3-phase motor controller and a complete inverter stage built with ST power transistors ready to connect to the motor. Motor-control firmware is also included, making it easy for users to start the motor and begin sending commands.

"Our motors are trusted worldwide to deliver high quality, precision, and accuracy," said Felix Herger, Head of Business Development Industrial Automation, maxon motor. *"Teaming with ST has created a platform that makes these attributes more easily accessible to a wider variety of product designers."*

"Designing high-end motion controls with accurate positioning capabilities is complex and time-consuming, demanding specialist skills. Working with maxon, we have now put those skills in a box for our customers," said Branimir Ivetic, Motion Control Product Marketing Manager, STMicroelectronics. *"The EVALKIT-ROBOT-1 kit accelerates development of next-generation robotics and automation that delivers advanced capabilities and dexterity with excellent reliability and ease of use."*

The kit is available now at www.st.com, priced at \$129.00.

Further technical information:

ST's [STSPIN32F0A](#) system-in package contains critical circuitry for motor control, including an [STM32F031C6](#)* microcontroller and three-phase inverter driver in a compact 7mm x 7mm VFQFPN package. The microcontroller comes loaded with plug-and-play firmware for MODBUS communication and field-oriented control (FOC) with precise positioning capabilities. Power management and current sensing circuitry are also embedded in the device making it more flexible and versatile.

The maxon EC-i 40, 40mm-diameter, 100-Watt brushless (BLDC) motor embeds a maxon ENX 16 EASY 1024-pulse incremental encoder for precision control. Hall sensors for detecting rotor position are included. The motor features an optimized design for high output torque with low cogging torque, which permits smooth motion across the speed range and enhances positioning precision.

The 3-phase BLDC inverter power stage features ST's [STL7DN6LF3](#) 60V, low on-resistance, N-channel MOSFETs, capable of 6A maximum output for driving the motor.

** STM32 is a registered and/or unregistered trademark of STMicroelectronics International NV or its affiliates in the EU and/or elsewhere. In particular, STM32 is registered in the US Patent and Trademark Office.*

About maxon

maxon motor is a developer and manufacturer of brushed and brushless DC motors, as well as gearheads, encoders, controllers, and entire mechatronic systems. maxon drives are used wherever the requirements are particularly high, such as in NASA's Mars rovers, in surgical power tools, in humanoid robots, and in precision industrial applications. To maintain its leadership in this demanding market, the company invests a high percent of its annual revenue in research and development. Worldwide, maxon has 3000 employees at nine production sites and is represented by sales companies in nearly 40 countries.

About STMicroelectronics

ST is a global semiconductor leader delivering intelligent and energy-efficient products and solutions that power the electronics at the heart of everyday life. ST's products are found everywhere today, and together with our customers, we are enabling smarter driving and smarter factories, cities and homes, along with the next generation of mobile and Internet of Things devices.

By getting more from technology to get more from life, ST stands for life.augmented.

In 2018, the Company's net revenues were \$9.66 billion, serving more than 100,000 customers worldwide. Further information can be found at www.st.com

For Press Information Contact:

Michael Markowitz
Director Technical Media Relations
STMicroelectronics
Tel: +1 781 591 0354
Email: michael.markowitz@st.com

Felix Herger
Head of Business Development Industrial Automation
maxon motor ag
Tel.: +41 41 666 15 69
E-mail: felix.herger@maxongroup.com