

Phytron introduces the development environment APS Arduino Shield

High-precision 5A, 24-70 V_{DC} stepper motor power stage for Arduino developers

Gröbenzell 4th of April 2014; **Phytron GmbH introduces the APS Arduino Shield - a development environment for its stepper motor power stage APS. The stepper motor power stage APS is connected to the popular in research and prototyping open source developer platform "Arduino"(eg Arduino UNO) via an adapter board. The APS combines high step resolution (up to 1/512 step) and smooth running with dynamic positioning (500,000 step/s). Developers can use the powerful industry-proven amplifier for driving stepper motors in most demanding applications with up to 5A_{PEAK} at 24-70 V_{DC} (clock / direction or digital sin / cos via SPI).**

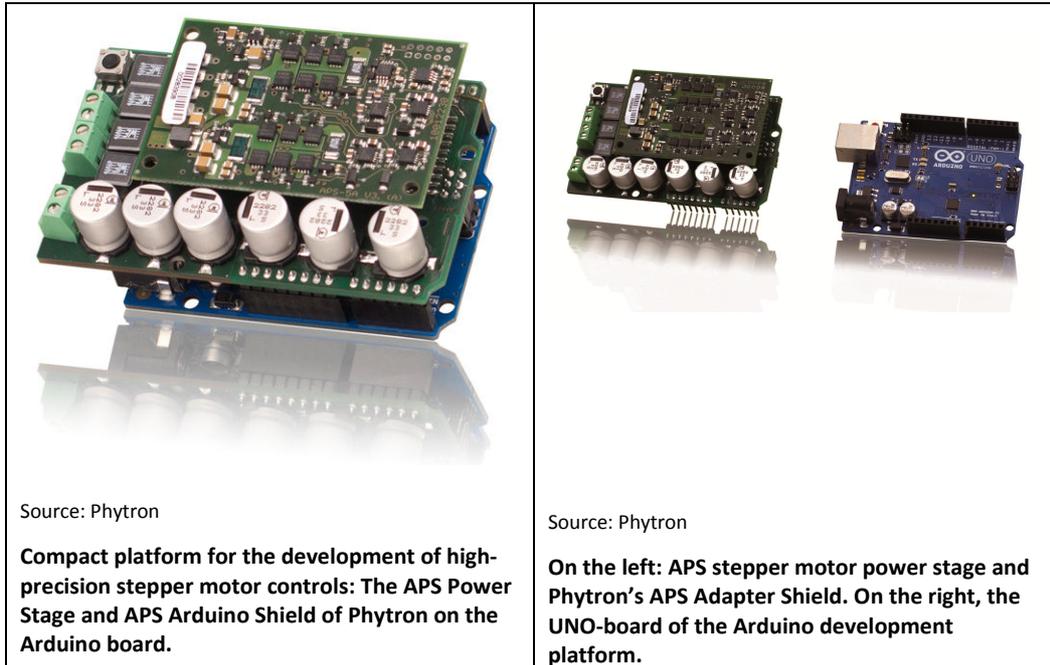
The bundle of APS power stage and adapter Shield is available for a catalog price of € 277,- (graduated prices on request, VAT not included; Arduino base board not included).

With comfortable parameterisation, outstanding features and exceptional performance the APS-Arduino-Shield establishes the premium market segment for Arduino compatible stepper motor power stages. Phytron's stepper motor power stage APS (5 A_{PEAK} at 24-70 V_{DC}) is already being used by leading automation manufacturers as the core of industrial drivers. With the APS Arduino Shield, the specialists for high precision stepper motors and motor controllers provide now the interface between its proven high-performance amplifier technology and the open-source Arduino platform.

The Arduino community (www.arduino.cc) can now access a high-precision power amplifier for driving 2-phase stepper motors up to 5 A_{PEAK} at 24-70 V_{DC} for a shaft power up to 250W. The APS module provides a 1/512 step current resolution with up to 500,000 steps per second. It will position accurately up to 1/20 (depending on mechanics) even without encoder and provide micro step typical smooth running combined with high speed. Phytron's APS technology produces a current waveform close to a perfect sine wave with minimal heat loss. This high-precision output signal enables the low-loss and low-resonance operation of the motor, the rapid run of each substep and precise approaching of each position. The configuration and diagnostics of the very compact amplifier (40 × 60 mm) is possible via serial peripheral interface (SPI) with an straight forward parameter set. The control works either via clock/direction or digital sin/cos (via SPI). Phytron provides a free demo program for download on the product website.

Available images: Following images are available in a printable format for download at

<ftp://ftp.phytron.de/PressKits/EN/aps-arduino-shield/> :



Source: Phytron

Compact platform for the development of high-precision stepper motor controls: The APS Power Stage and APS Arduino Shield of Phytron on the Arduino board.

Source: Phytron

On the left: APS stepper motor power stage and Phytron's APS Adapter Shield. On the right, the UNO-board of the Arduino development platform.

Produktlinks:

As direct text link in printed form please use www.phytron.eu/APS-Arduino

As redirected link, as base for resizing and QR-Codes or online links please use the following link:

About Phytron:

Phytron is founded in 1947 and since 1972 manufacturing as Phytron-Elektronik GmbH. the family business based in Gröbenzell close to Munich is a leading international manufacturer in the step motor and control industry. In over 25 countries around the world, customers benefit from the high quality standards and high precision products created by Phytron. Since 2011 Phytron provides the 1-Step Drive-48V 5A for the SIMATIC® ET 200® S. Since 2012 a Phytron motor focusses laser beam and camera inside the ChemCam instrument in the Mars Rover "Curiosity". [Read more in the Business Chronicle ...](#)

In 2013 "Phytron-Elektronik GmbH" became "Phytron GmbH" and since end of 2013, the Munich-based industrial holding Stemas AG (www.stemas.de) got involved in Phytron GmbH (www.phytron.eu) with 51%. The founding families to the Managing Director Birgit Hartmann and the chief clerk Johannes Schmid welcome the new co-partner and the obtained long-term security for the company.

[Phytron PressRoom](#) – here you find everything you will need for this or further publications.

Press contact:

Phytron GmbH
Alexander Hatzold – Head of Produktstrategie and Marketing
Industriestr. 12, 82194 Gröbenzell - Deutschland
Telefon: +49 8142 503-251
E-Mail: marketing@phytron.de | www.phytron.eu