

## mechapro Stepper Motor Newsletter (Issue 2/2018)

Topics in the newsletter 2/2018:

- 1.) New closed loop stepper motor drivers from LAM
- 2.) Improved version of Tiny-Step.plus available
- 3.) smOOver.opt as an upgrade for CNC-Controller available now
- 4.) Black Friday and Cyber Monday on mechapro Shop

- 1.) New closed loop stepper motor drivers from LAM

With the new DDS1 series, our partner LAM Technologies introduced a new series of digital stepper motor drives. As known from the DS10 series, the modules are available in different sizes covering several ranges of input supply voltage and motor output current, allowing to select the right part for each application. Interesting features have been added in addition to the digital current control. A +/-10V analogue input can be used to set the speed target value, or up to four different predefined target values can be selected by using two digital inputs. When operated with pulse and direction signals, an internal clock multiplier can be used to reduce the need for high clock rates to be generated by the master controller at fine micro step settings. The models DDS12xx additionally offer more I/Os as well as an encoder interface which enables a closed loop control. Electrical power losses in the motor are reduced to a minimum in this mode of operation. Additionally, apart from position control and speed control modes, a torque control mode is available.



*Figure 1: New digital stepper motor controller series DDS10.*

Another innovation is the DDS6 series with CANopen interface (profile DS301). Available are DDS60xx with digital I/Os, DDS62xx with additional analog I/Os and encoder interface and DDS64xx with absolute encoder interface. The line-up will be continued with the DDS7 series being prepared now, offering fieldbus interfaces like Modbus, Profinet and EtherCAT. Please contact us on demand.

mechapro adds the DDS1274 (24-90V=, 1.0-4.5Arms) with encoder interface at first into our lineup available from stock:

<https://www.mechapro.de/shop/Schrittmotor-Endstufen/Einzelachsen-Takt-/Richtung/LAM-DDS1274-Digitale-1-Kanal-6-4A-Mikroschritt-Endstufe-mit-Encoder-Eingang::282.html?MODSID=8091c760d7356c711b8c2b73f136f026>

As a matching motor we are offering the M1233070S8M12, equipped with 500 line encoder and M12 connectors:

<https://www.mechapro.de/shop/Schrittmotoren/56mm-Flansch-Nema23/Schrittmotor-LAM-M1270E106M12-mit-Encoder::281.html>

## 2.) Improved version of Tiny-Step.plus available

Our compact stepper motor controller Tiny-Step.plus is available now with improved technical characteristics. The input supply range is extended from 15-35V to 15-38V, the maximum motor current can now be set up to 2.4A/1.7A (peak/effective). This enables the devices to be used with off-the-shelf 36V switching power supplies.

## 3.) smOOver.opt as an upgrade for CNC-Controller available now

Get the optimum out of your CNC-Controller with smOOver.opt! Change now to low-loss stepper motor driver with smooth micro step! The upgrade works plug&play on CNC-Controller III and CNC-Controller VI.

smOOver.opt is an adaptor board to use a smOOver.drv as a replacement for the original driver boards in CNC-Controller III and VI. The power losses are reduced significant compared to the original stepper drivers. This results in higher voltages at the motor, giving higher possible speed. Micro step drive reduces resonances and vibration between workpiece and cutting bit. smOOver.opt can also be used as an evaluation board for smOOver.drv, e.g. in combination with our break our board Interface II.



Figure 2: smOOver.opt with plugged in smOOver.drv (front right) compared to original „CNC-Steuerkarte“ (back left).

## 4.) Black Friday and Cyber Monday on mechapro Shop

Prices going mad in the cyber week from 23th to 29th of November. Save up to 21% on selected products! Starting with Black Friday, we will offer a collection of products for reduced bargain prices:

- Stepper motor driver LAM DS1076, up to 8.5A (6.0Aeff), 24-90V
- Programmable stepper motor controller LAM DS3044, up to 5.6A (4.0Aeff.), 20-50V
- Nema 23 stepper motor Nidec Servo KH56QM2-951, 1.37Nm at 2.0A
- smOOver.opt adaptor board to use smOOver.drv in CNC-Controllers III and VI
- 19" stepper motor driver HP-Step.pro, max. 4A/45V, micro step up to 1/10

<https://www.mechapro.de/shop/specials.php?language=en>

All offers incl. German VAT (19%), shipping costs to be added. Prices valid only for online orders!