

# PRODUCTS AND SERVICES

## Ultraflat stepper motor

Delta Line offers its ultraflat, high torque stepper motor with a step angle of 1.8° to designers who require maximum torque and high positional accuracy combined with minimum overall height. When operated in microstep, the DPM- 63S10 can achieve positional accuracy to <math><0.02^\circ</math> and with the right driver it can run as a brushless motor, says the company.



Thanks to the high torque, exceptional speed stability is possible at low speeds, thus eliminating the need for gearboxes/gearing solutions. At high speeds, powers of up to 50 W can be achieved with short power-up time. Applications for the stepper motor include medical pumps. Customer-specific versions (mechanical and electrical) are available on request.

**Delta Line SpA, tel. +39 02 9227 6400, [www.delta-line.it](http://www.delta-line.it)**

## Improving the effectiveness of PVD coating

Guyson International's blast finishing equipment is often used for the surface preparation of components prior to physical vapour deposition (PVD) and thermal spray coating in order to improve coating adhesion.



Automated blast finishing equipment provides the required consistency of surface finish and Guyson offers various levels of automation, depending on volumes of components being processed. Each of options involves tight control of parameters such as media type and size, blast pressure and gun angles, surface blast speed and blast nozzle stand-off.

In addition, Guyson offers two options of robot blasting particularly for products such as medical implants that require a precision finish and validation of that finish. It states that robot blasting enables very tight levels of blast control and absolute repeatable coverage. Cost savings in compressed air consumption, media wastage and labour can often be made to offset the cost of the robot. Those interested in automated blast systems are encouraged to submit sample components for free feasibility testing.

**Guyson International Ltd, tel. +44 (0)1756 799 911, [www.guyson.co.uk](http://www.guyson.co.uk)**

## Partners in assisted living systems

Art of Technology (AoT) is seeking partners to help it continue the development work it undertook as part of the successful EMERGE project. Completed in March 2010, the EMERGE project, supported by the Ambient Assisted Living Programme of the European Union ([www.emerge-project.eu](http://www.emerge-project.eu)) was tasked with researching ways to improve the support of elderly people through the use innovative emergency detection and prevention systems.



Ambient, unobtrusive sensor technologies, software abstractions and expert systems for situation recognition and decision support were employed to analyse user behaviour on the basis of monitored activities. Daily living activities, user mobility and selected vital parameters were to be employed to detect acute emergency situations or deviations from typical daily routines and provide early warning alarms in the event of deterioration in the elderly person's health.

The project achieved these goals by developing technology and devices and a layered functional system to monitor and analyse the situation and inform caregivers if required. Nine development partners built and validated the EMERGE system (see illustration below).

AoT specialises in custom electronic system design and development of hardware and software for embedded systems. As part of the EMERGE project, AoT developed the SensoWatch, an automatic monitoring device that incorporates multiple sensors into a single wrist device. This enables continuous monitoring of parameters such as pulse, skin temperature, acceleration, movement measurement and lack of movement. Worn like a normal wristwatch, it continuously transmits data to a base station and if necessary a call for help. It comprises low power wireless communication (zigbee etc.); integrated algorithm for data analysis to provide health parameters based on the sensor measurements and to trigger alarms; an internal rechargeable battery; and USB connection to a PC for configuration.

The SensoWatch is not a stand-alone product, but rather a building block for ambient assisted living systems to support elderly and infirm people in the future. AoT is seeking potential partners to help it continue the on-going development and implementation of the EMERGE concept, as well as the development and marketing of devices that can be used in these systems.

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