

Modern Motion Control Solutions in Practice



The Challenge

The pharmacist selects the desired medicine on his computer and a kind of magic assistant delivers it directly to the front desk.

Science fiction?
No, it is not!

Automated storage systems in use by pharmacies are based on a combination of user-friendly operational concepts, intelligent storage management software, and modern drive and control technology.

The Solution

Apostore GmbH is one of the world's leading suppliers of compact sized storage systems in use by pharmacies and hospitals. The medicine boxes are automatically transferred into the storage system, arranged internally, and dispensed again at the request of the pharmacist.

Each medicine box on the incoming conveyor belt is captured by a robot gripper. The gripper aligns the box, measures the size by gently touching it, and scans the product code. The robot transfers the box into the storage system and puts it on one of the internal shelves. Modern software takes care that each box is clearly identified, each shelf is filled up in the best space-saving manner, and that no old boxes past the expiration date are still in stock. If the pharmacist selects a medicine on his computer, the whole process reverses and the correct medicine box is provided at an output channel close to the front desk.

The small drives of the robot gripper are controlled by MACS motion control units and servo amplifiers from zub machine control AG. A high resolution motor torque control algorithm allows the "fingers" of the gripper to touch the medicine box very gently without risking any damage. Modern digital position control allows an accurate measuring of the box size and ensures precise movements inside the storage system and on its shelves.

Position and torque control is just one of the many competitive motion control features handled by zub's products and software algorithms.

The Conclusion

Even complex process tasks seem to be simple in the end if the right product is combined with a highly efficient engineering service that understands the application's demands.

Application videos and further product information:

- Video links showing storage systems based on zub's motion control units:

[Pharmacy in action](#) / [Medicine box handling](#)

- Links offering further information on zub's products:

Press releases: [MACS5 + PLC](#), [MACS5-AMP](#) / Data sheets: [MACS5](#), [DSA-E4](#)

Your Partner

zub machine control AG provides highly sophisticated motion control modules and software for drive positioning and synchronization.

The MACS motion control modules are the intelligent link in between the PLC or PC and the drive unit. Standardized hardware and software interfaces combined with free programmability offer maximum compatibility without any limitation for the integration of application-specific features and add-ons.

zub AG offers supplementary consulting and engineering services to assist their customers in a very focused and most efficient way.

Take the opportunity to reduce your time to market, your development costs, and your risks. Count on a partner like zub AG, who provides products and engineering services focused on highly-sophisticated but still cost-optimized motion control solutions.

We are happy to accept your challenge. Please [contact](#) us for an initial discussion.

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