



Press Release

For the perfect cup of coffee: KUKA Cobot simulates 10 years of coffee grinder use

Augsburg/ Niederndorf, February 27, 2024 - Grind coffee to the gram: The new LIGRE brand is conquering the consumer sector with this function, which was previously reserved for expensive catering machines. A KUKA Cobot helped with quality assurance tests of the new grinder. Its task: weighing and grinding coffee 55,000 times.

The Bavarian company Gronbach specializes in the development and production of technical assemblies or complete products, such as coffee machines, induction hobs, steam cookers and much more. Under the LIGRE brand, the company is now entering the market as a manufacturer of high-end machines for coffee preparation.

A completely new feature of a coffee grinder in the consumer segment is the ability to preset the amount of coffee to be ground to the exact gram. To this end, the research and development experts at Gronbach in Niederndorf in Tyrol subjected the new coffee grinder to intensive quality control - and relied on the support of the KUKA Cobot LBR iisy in a test setup.

Preparing coffee in a continuous loop

The underlying assumption was that the coffee grinder would process around 500 kg of coffee over a service life of around ten years. To obtain correct test results, the test setup had to be as precise, repeatable, and fast as possible. After all, the results had to be reliable, and the knowledge gained had to be incorporated into future developments and improvements - a perfect task for a robot.

An enormous advantage of the LBR iisy is its simple programming. You can guide the collaborative robot by hand and teach it the desired tasks simply by pressing a button. Thanks to its intuitive handling, the cobot offers flexible application

Your Contact

Teresa Fischer
Corporate Communications

T +49 821 797 3722

press@kuka.com
kuka.com/iiMagazine



options and works precisely and repeatably. "The Cobot solution is an invaluable advantage for the flexibility required in a test laboratory. Other industrial robots with complex fuse structures would be out of the question for test series like ours due to the high effort involved, as the costs would be disproportionate to the relatively short period of use," says Peter Kopfensteiner, Research and Development, Appliances Division at Gronbach.

For the two-month test, the LBR iisy Cobot carried out 55,000 coffee grinding and weighing processes with the portafilter of the coffee machine in continuous operation. The fully automated process was logged, allowing deviations to be detected quickly and quality to be ensured.

55,000 test cycles as a warm-up exercise

The pleasing test result: "The grinder worked so well that the service life after simulated use over ten years showed practically no signs of wear, meaning it would last significantly longer," says Alexan Fahringer, Technical Development and Test Engineer at Gronbach. Incidentally, processing the 55,000 test grinds is hardly worth mentioning for the Cobot. "It's only just well run in," says Michael Reindl, Ac-count Manager at KUKA, alluding to the several million cycles that KUKA robots achieve as standard.

The company's R&D team is certain that this use of the LBR iisy at Gronbach will not be the last. "As automation engineers, we are already thinking about how the cobot will support us in further quality controls and processes," says Fahringer.

KUKA

KUKA is a global automation corporation with sales of around 4 billion euro and around 15,000 employees. The company is headquartered in Augsburg, Germany. As one of the world's leading suppliers of intelligent automation solutions, KUKA offers customers everything they need from a single source. From robots and cells to fully automated systems and their connectivity in markets such as automotive with a focus on e-mobility & battery, electronics, metal & plastic, consumer goods, e-commerce, retail and healthcare.