Augsburg, 12 July 2022 – For children only the best: To distribute baby-food measuring spoons quickly, system integrator MODU System in Malaysia opted for a KR DELTA from KUKA in Klang, west of Kuala Lumpur. The Hygienic Machine version of this high-speed robot is ideal for its task – and the KR DELTA can do much more.

Hygiene is fundamental to food safety, and it's also a challenge in the food industry, with increased requirements for production areas, cleaning and disinfection of surfaces and equipment, and trained and healthy staff. Malaysian system integrator MODU System supports food producers with expertise in robot-based automation solutions – and assistance from KUKA.

Pick and place: it's a scoop!

Two KR DELTA robots pick up measuring spoons from a conveyor belt and place them on a second belt in open conveyor pockets, each holding a food bag with baby food. In a free area next to each bag, a sticker includes a bar code. “When the robot detects the free area via the camera, it knows to place a spoon there,” said Rajinderjit Singh, Regional Manager of MODU System.

Another machine then pushes the bag and spoon into a box. What sounds relatively simple actually represents the hand-in-hand interaction of various systems in ongoing production. “Naturally, the solution centers on the KR DELTA, which can come into direct contact with food because of its stainless steel body,” explained KUKA employee Lim Jia Ming.

Up to 80 spoons per minute

With a cycle time of as little as 0.5 seconds, the KR DELTA extremely fast. “Two robots manage about 80 spoons per minute,” said Jia Ming. At the same time, the robots and the KUKA software behind them, such as KUKA.VisionTech for
2D object recognition and KUKA.PickControl, work with high precision, avoiding potential manual errors. One of the biggest initial challenges for this process was accurate calibration. This is a precondition for the two KR DELTas to grip the spoons with precision at high speed. Before automation, the baby food manufacturer carried out this process as a potentially dangerous manual step.

“The customer has great confidence in the automation solution that KUKA and MODU System have developed,” Singh explained. “We ourselves are very impressed with the stainless steel design of the KR DELTA and believe that the application is ideally suited to the food industry, which places great emphasis on hygiene. The system is very easy to operate, looks good, and the stainless steel robot design convinced our food-industry customer. I am very satisfied with the automation.”

*Read the full case study here:* KR DELTA distributes spoons: hygienically, precisely, and quickly | KUKA AG

KUKA is a global automation corporation with sales of around 3.3 billion euro and roughly 14,000 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 networking in markets such as automotive, electronics, metal & plastic, consumer goods, e-commerce/retail and healthcare. (As at December 31, 2021)