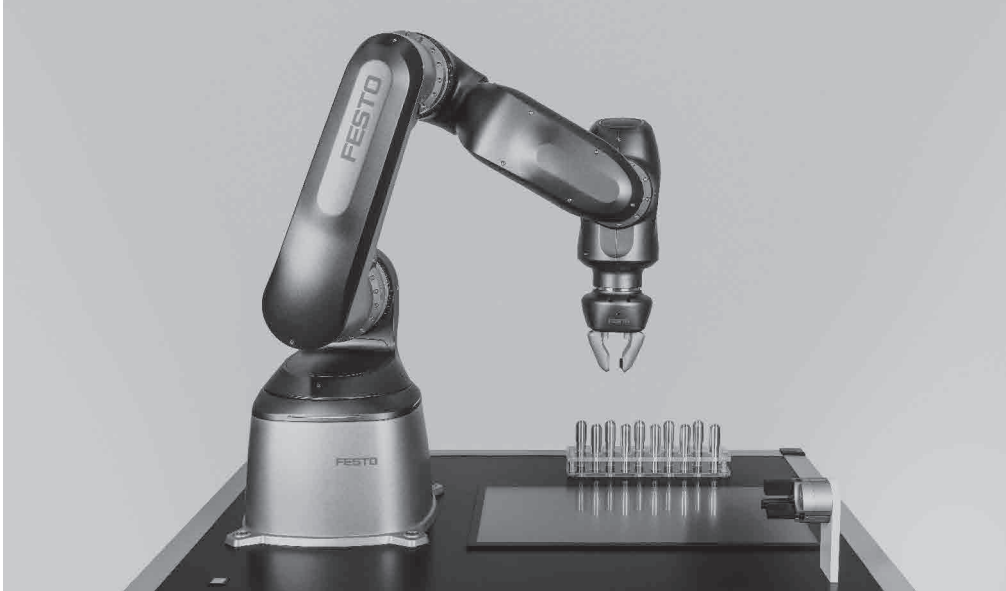


Festo Cobot – sorting different fruits safely

FESTO

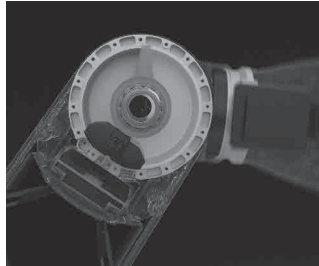
Dynamic Display
D-RO2303



In this exhibit, the Festo Cobot recognises and sorts different fruits based on their outline. The third-party camera system used can be easily put into operation with the help of plug-ins without much prior knowledge. The newly developed vacuum generator OVEH, combined with a suction pad from Festo, gently grips the fruit – without damaging it.

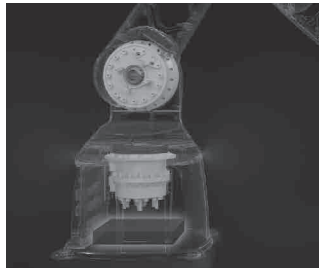
Festo Cobot – sorting different fruits safely

Pneumatic rotary drives



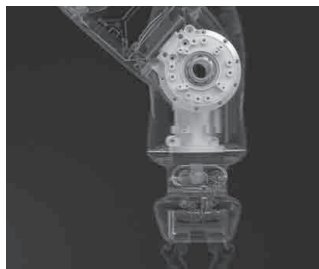
A pneumatic rotary drive has two compressed air chambers which are separated by a vane. Each chamber is pressurised in accordance with the specifications of the cobot's controller in order to move the vane, and thus the cobot as well. Pressure sensors and a displacement encoder continuously measure the actual values and transmit them to the safety PCB in order to compare target and actual values. In the event of deviation, a signal is forwarded to the cobot's controller in its base. The brake, which engages immediately in the event of a collision, is located behind the drive's housing.

Control and communication



The Festo Cobot does not need a control cabinet. The controller integrated into its base and the articulated joints communicate with each other once every millisecond. The controller specifies setpoint values and the articulated joints return actual values. The cobot can be quickly integrated into the application with simple plug connectors – even by laypersons.

Lightweight and compact



The cobot's low overall weight of less than 20 kg is the result of state-of-the-art, lightweight construction methods with minimal use of materials and lightweight support structures. The utilised pneumatic quarter-turn actuators are also especially light, because they don't require any additional gear units.

Piezo technology



The rotary drives in the cobot are controlled with piezo valves. Piezo valves have several advantages over conventional solenoid valves: they're small and lightweight, highly durable, incredibly fast, energy-saving and highly precise. This "controlled pneumatics" technology permits precise positioning of the rotary drives. For Festo, piezo technology is a key technology of the future.