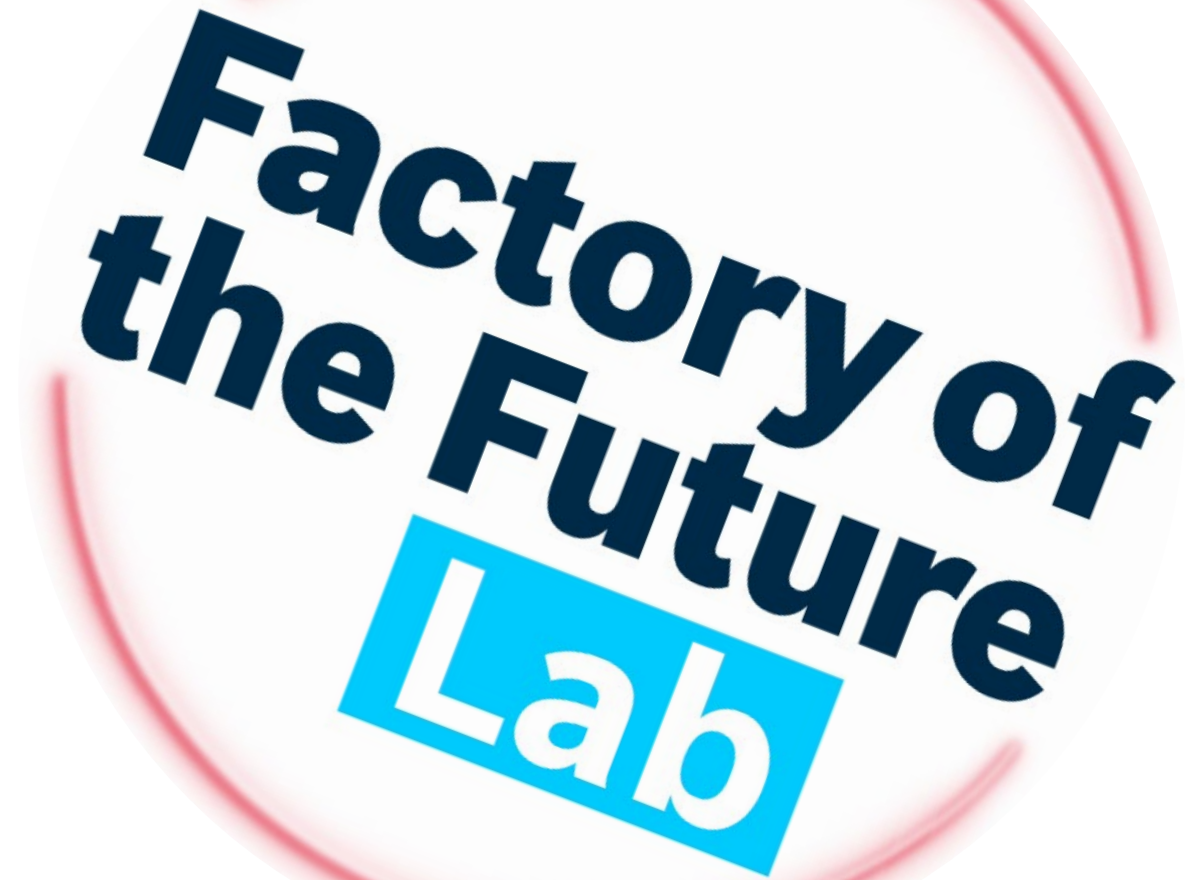


# Showroom

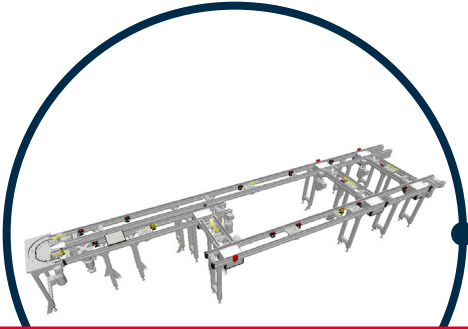
Bosch Rexroth in Warsaw

ul. Jutrzenki 102/104



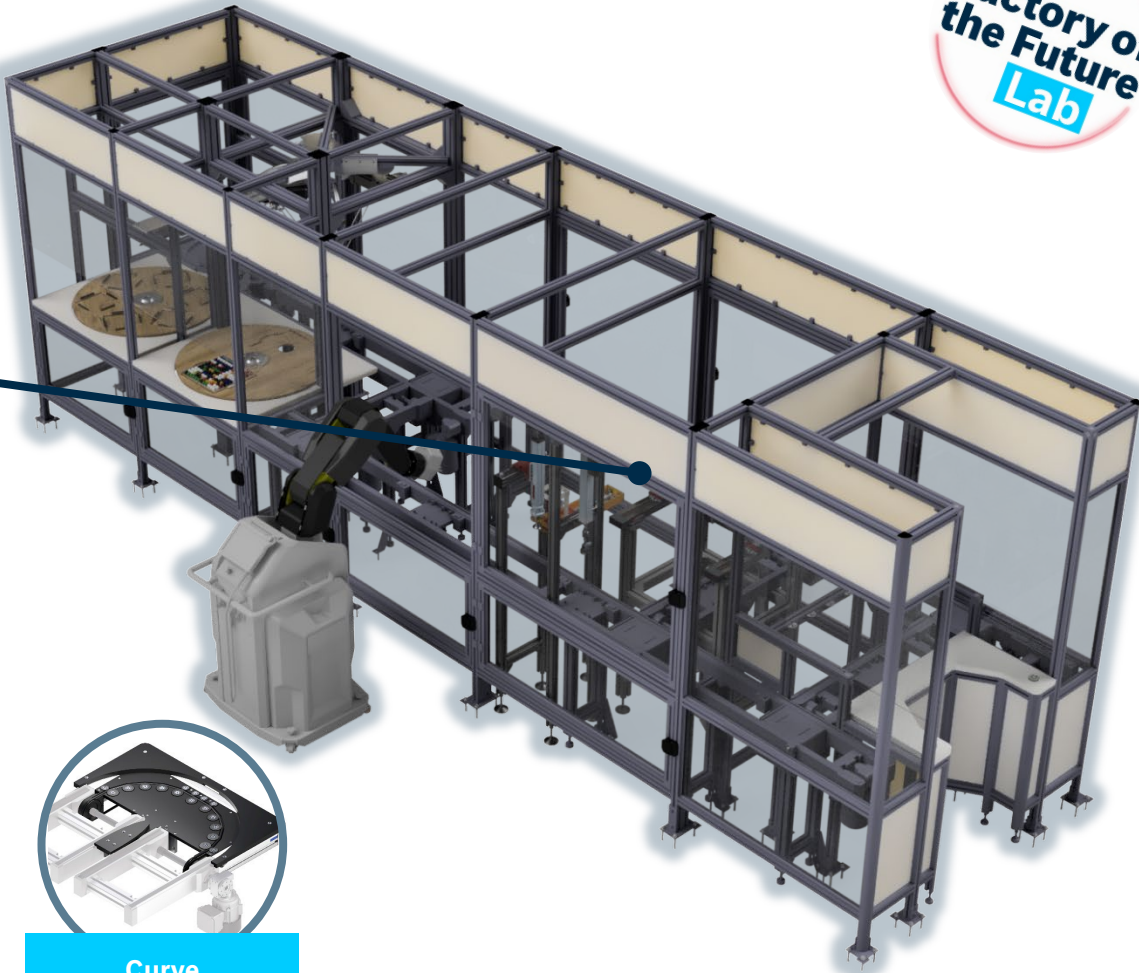
# Factory of the Future Lab

## Production line

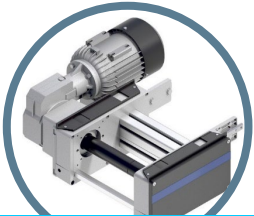


**TS 2plus Transfer System**

It transports the product on pallets to individual positions of the production line



**Frequency Converter**



**Longitudinal conveyor**



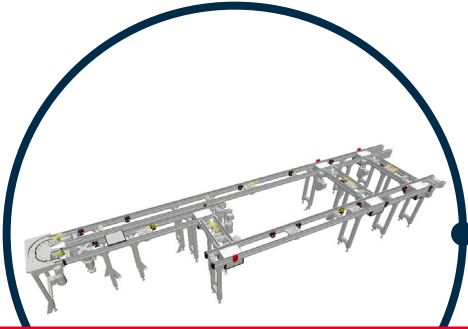
**Lift Transverse Unit**



**Curve**

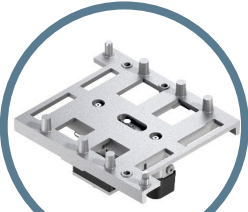
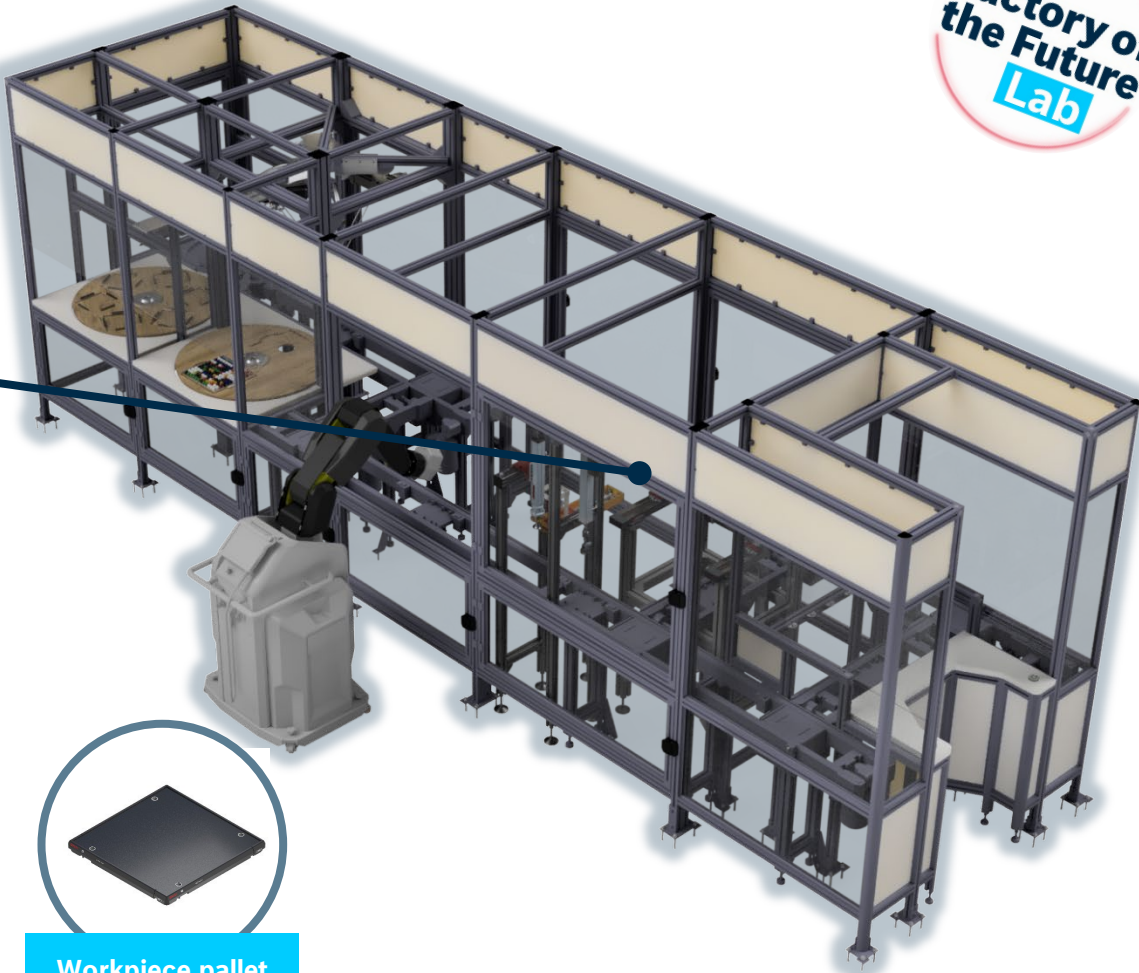
# Factory of the Future Lab

## Production line



**TS 2plus Transfer System**

It transports the product on pallets to individual positions of the production line



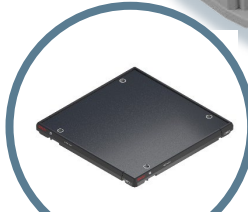
**Lift Positioning Unit**



**Lift Rotate Unit**



**Stop gate**



**Workpiece pallet**



# Factory of the Future Lab

## Production line



RFID Module



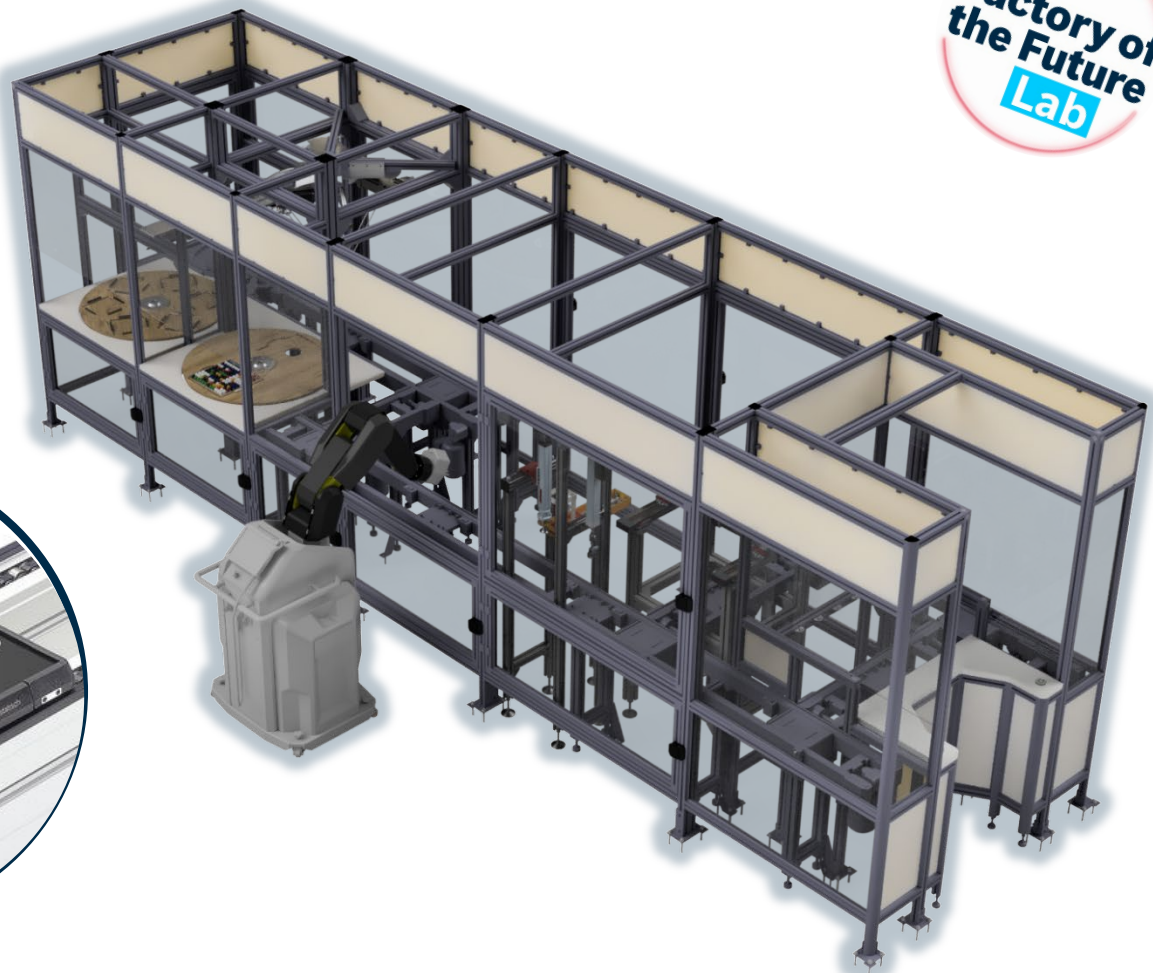
RFID Antenna



Mobile Data Tag



RFID



# Factory of the Future Lab

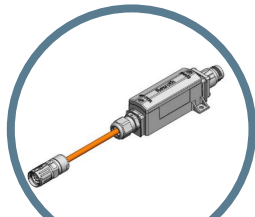
## Production line



Synchronous servo motor



Servo planetary gearboxes

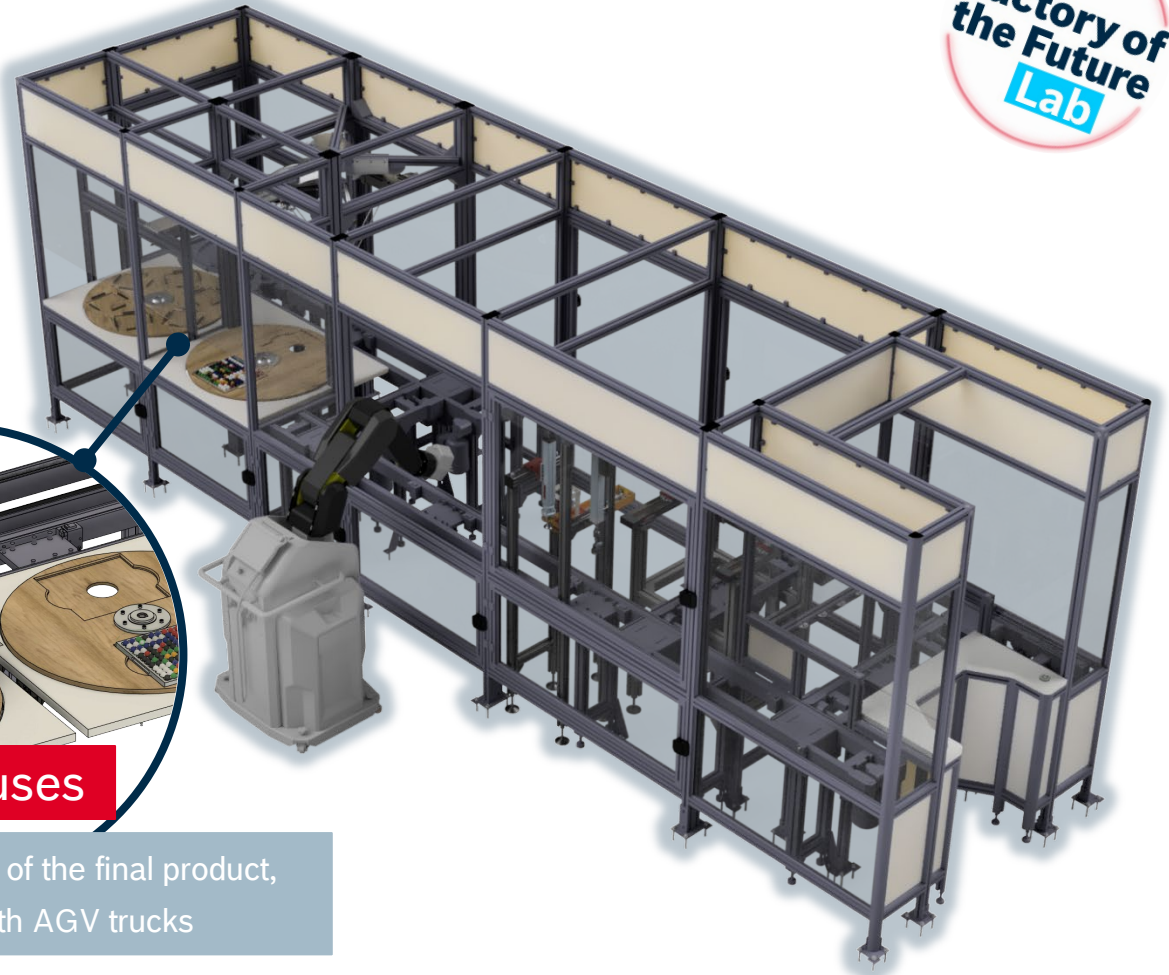


Batterybox

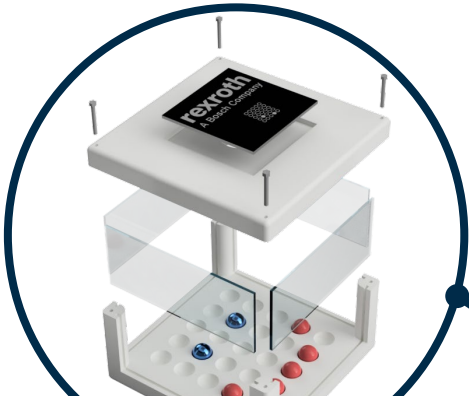


Rotary warehouses

Buffering of a part of the final product, replaced with AGV trucks



# Factory of the Future Lab Production line



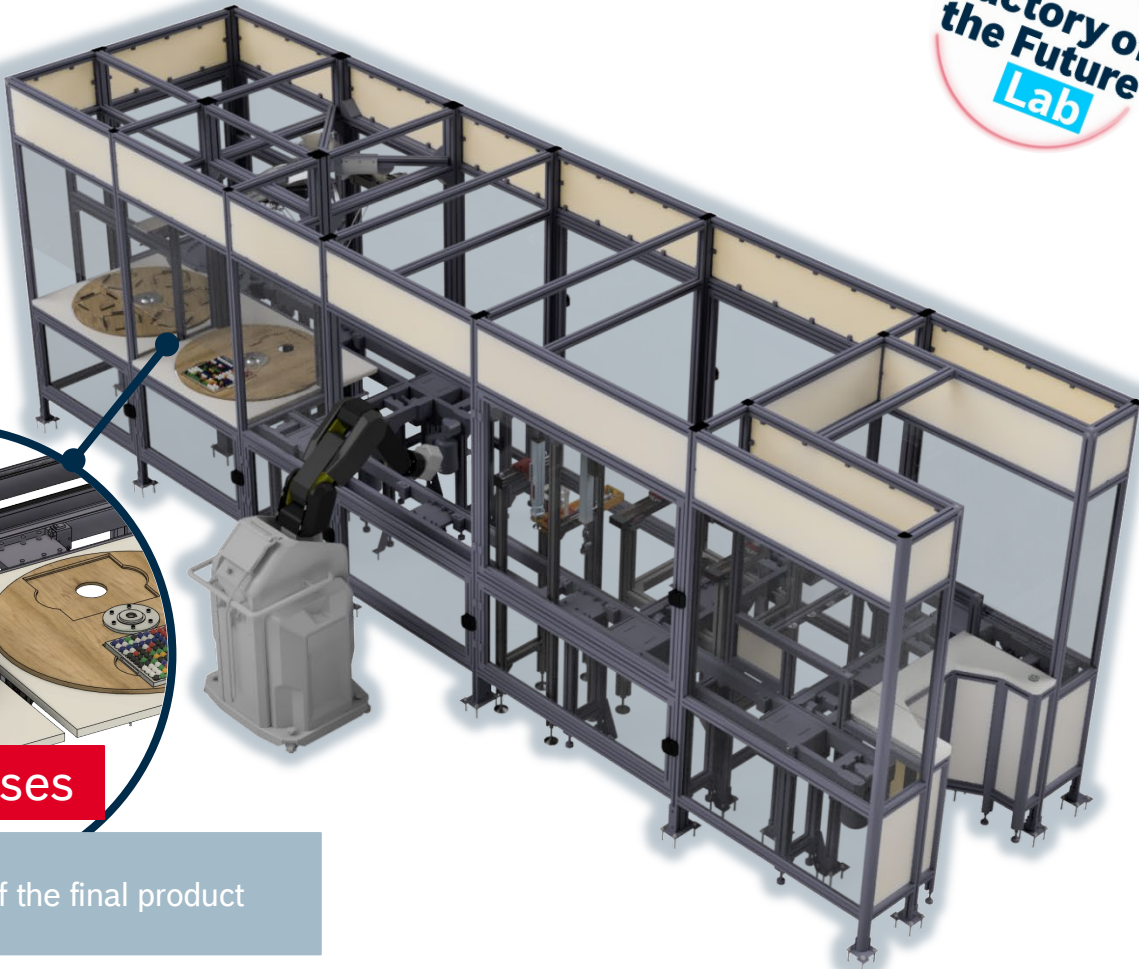
**Personalized product**

A product that demonstrates all the modules of the production line



**Rotary warehouses**

Buffering parts of the final product



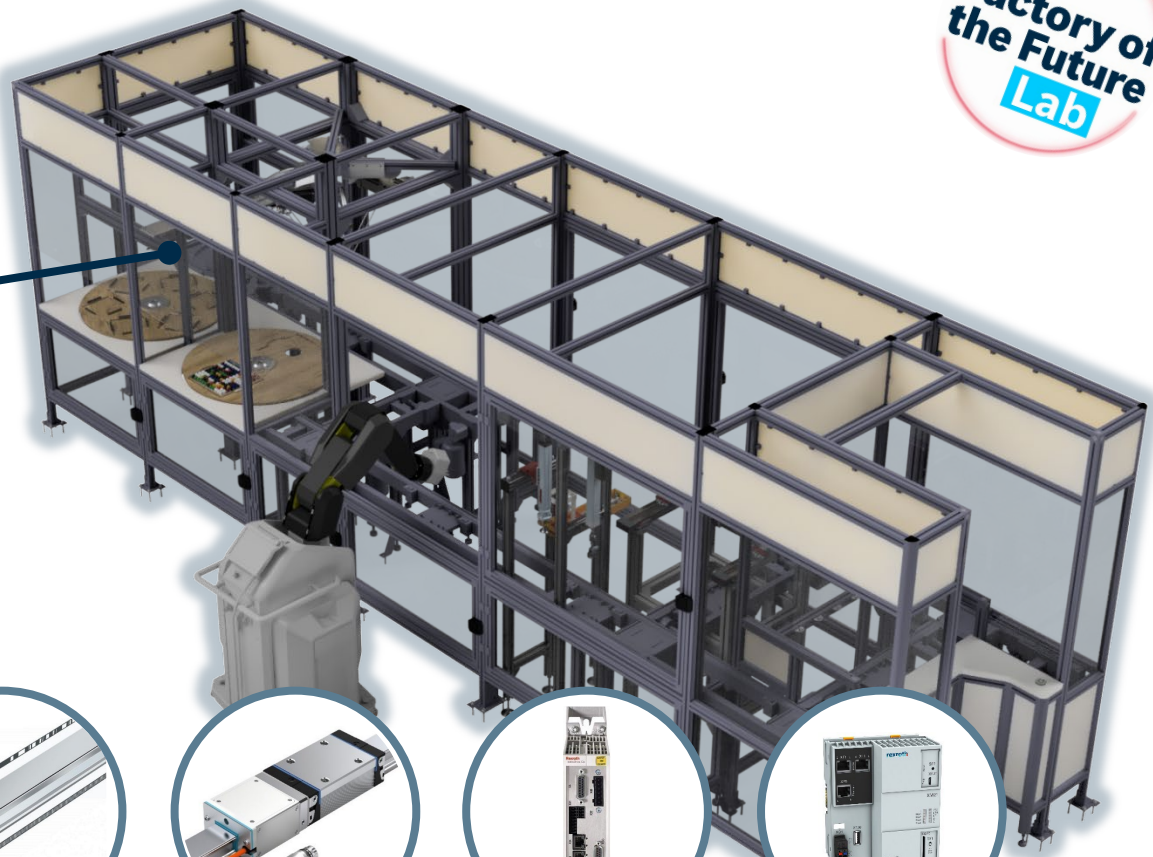


# Factory of the Future Lab Production line



**Portal manipulator**

Robot based on linear motors  
Takes a product and puts it on



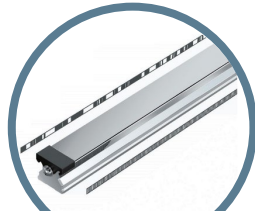
**Synchronous linear motor**



**Guide rails**



**Runner blocks**



**Guide rails with integrated absolute scale**



**Integrated measuring system**



**Compact converter**



**Embedded Controls**

# Factory of the Future Lab

## Production line



Embedded Controls



Control electronics



Supply device



Motor-integrated servo drive

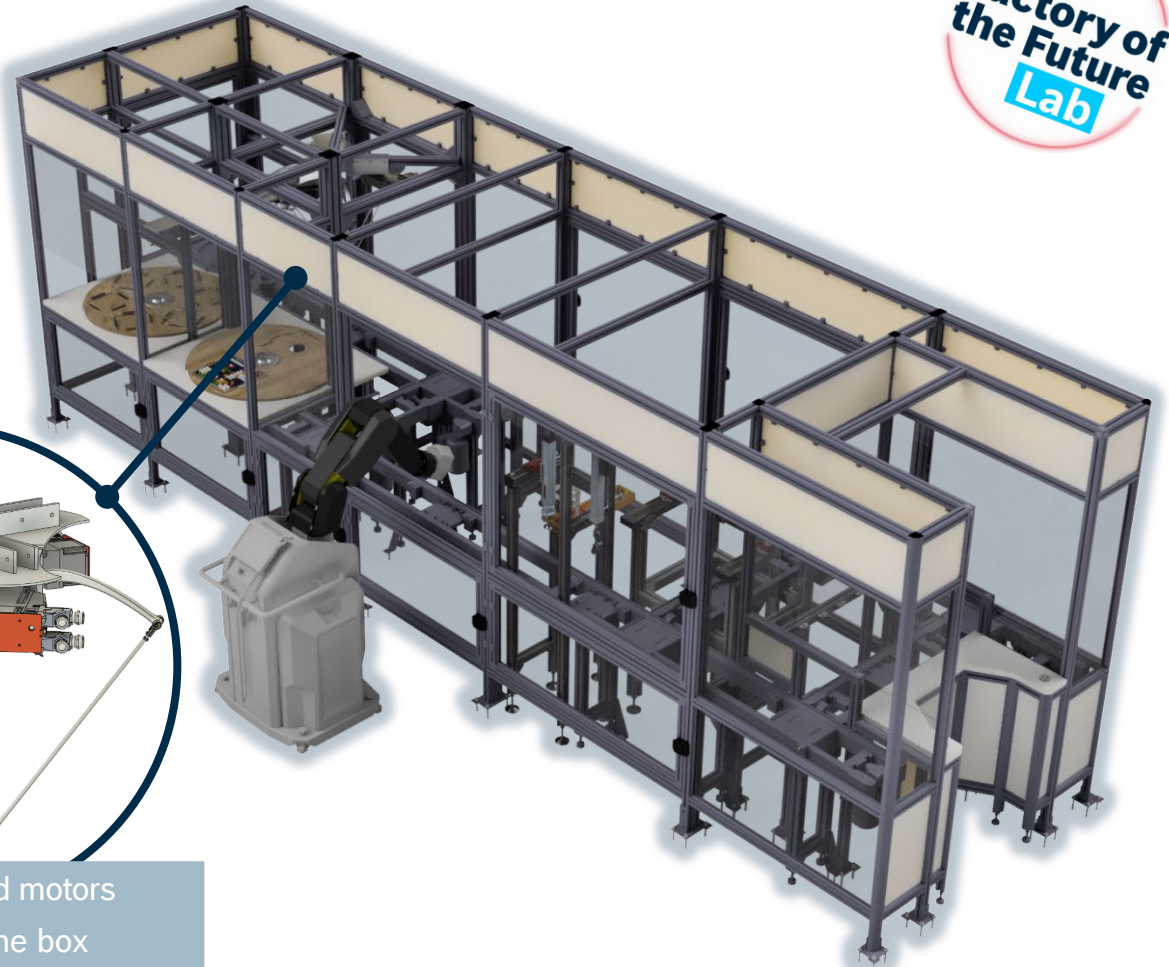


Servo planetary gearboxes



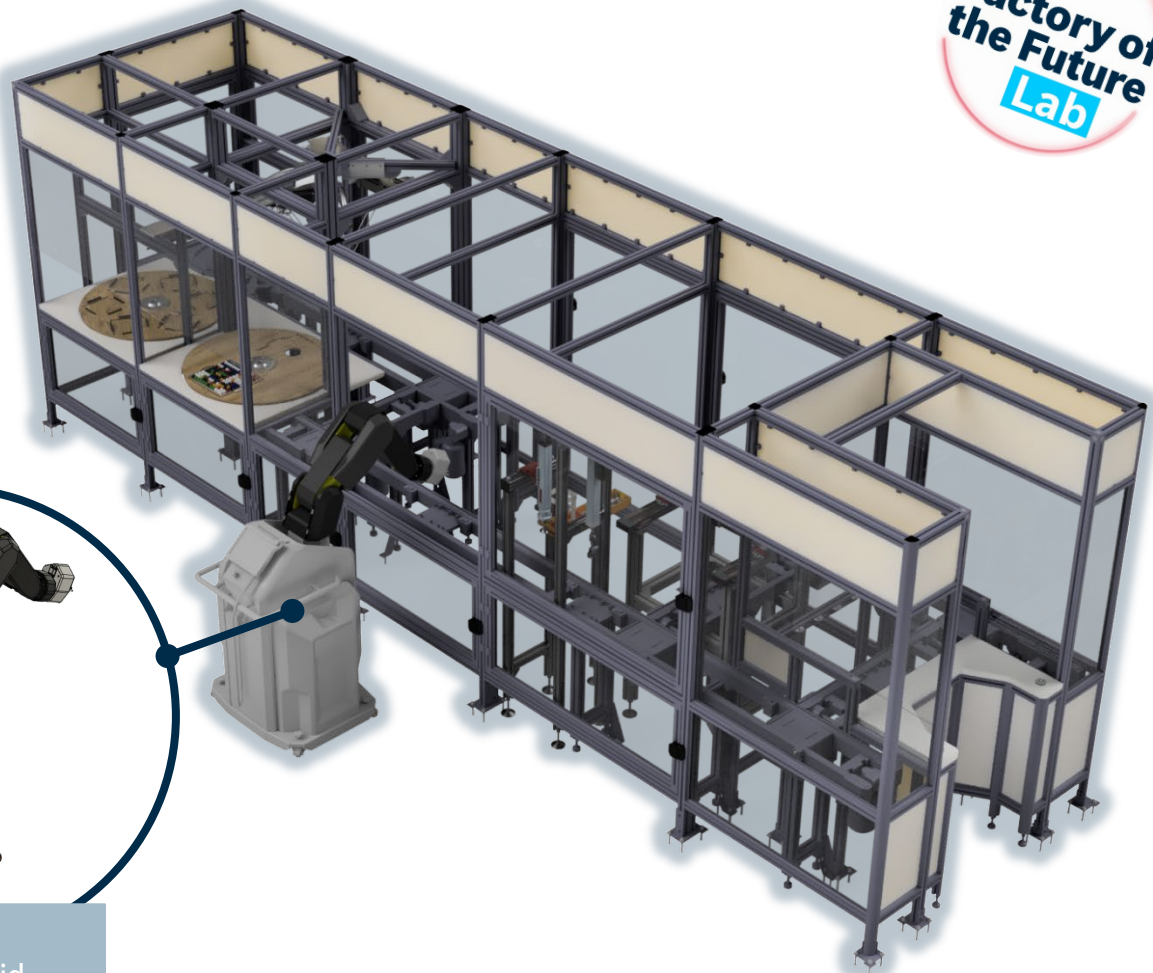
Delta

Robot based on integrated motors  
Puts colored balls into the box  
using a vision system





# Factory of the Future Lab Production line



**ActiveShuttle**

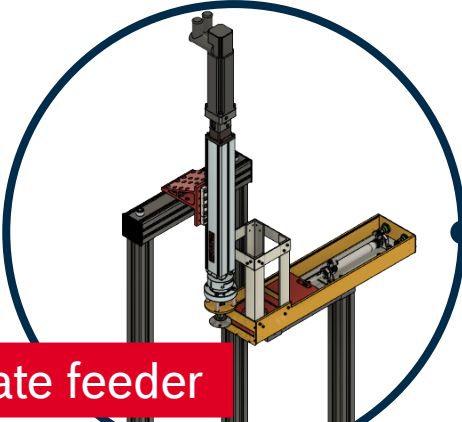
AGV self-propelled cart



**APAS Cobot**

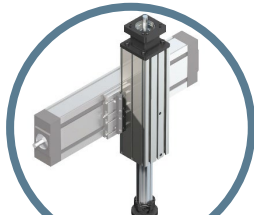
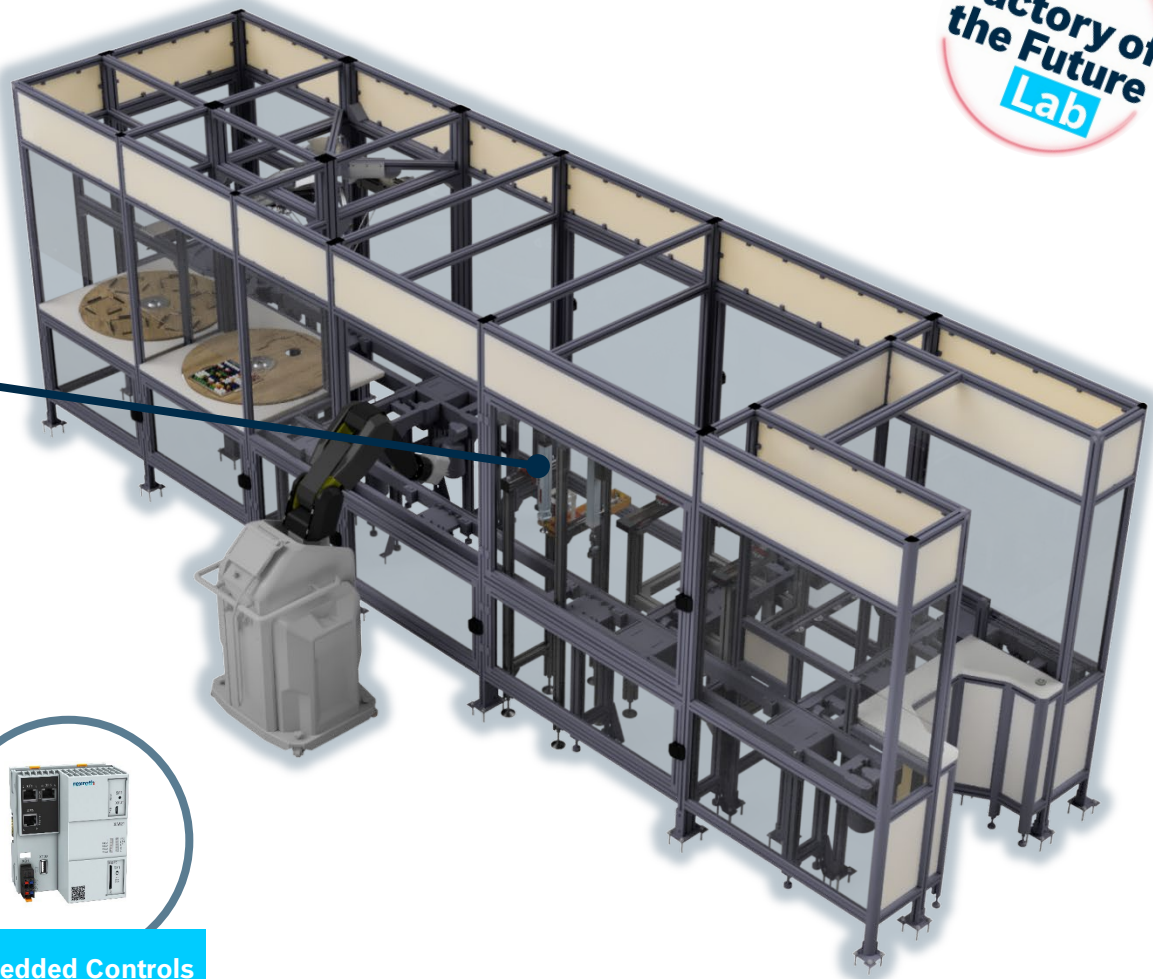
Collaborative robot  
Cover the box with a lid

# Factory of the Future Lab Production line



Laminate feeder

Having a pneumatic actuator, it pushes the engraving laminate and, with the help of a linear module, puts it on the top of the box



Feed Modules



Synchronous servo motors

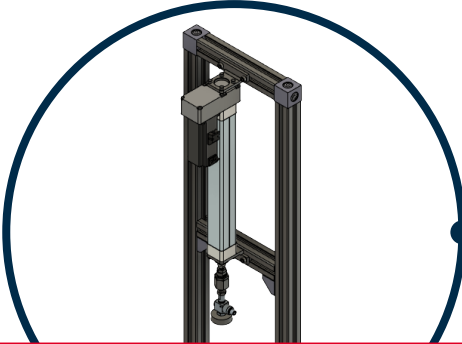
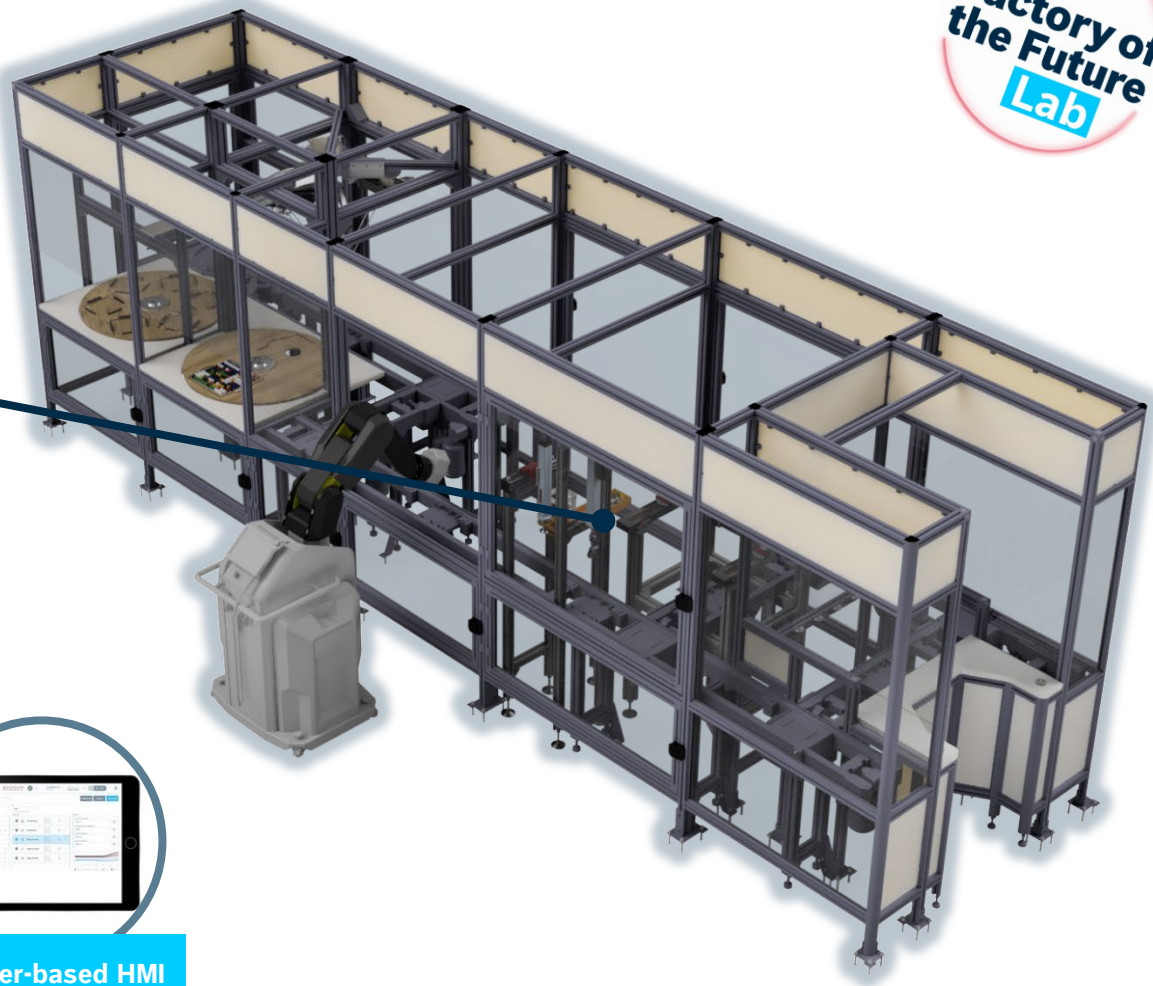


Compact converter



Embedded Controls

# Factory of the Future Lab Production line



**Electromechanical press**

The Smart Function Kit presses down the engraving laminate



**Electromechanical cylinder**

**Servo motor**

**Force sensor**



**Servo drive**

**Industrial PC**



**Browser-based HMI**



# Factory of the Future Lab

## Production line



Synchronous servo motors



Compact Modules



Compact converter



Compact System CS351



Tightening spindles



RT-Ethernet (PROFINET)

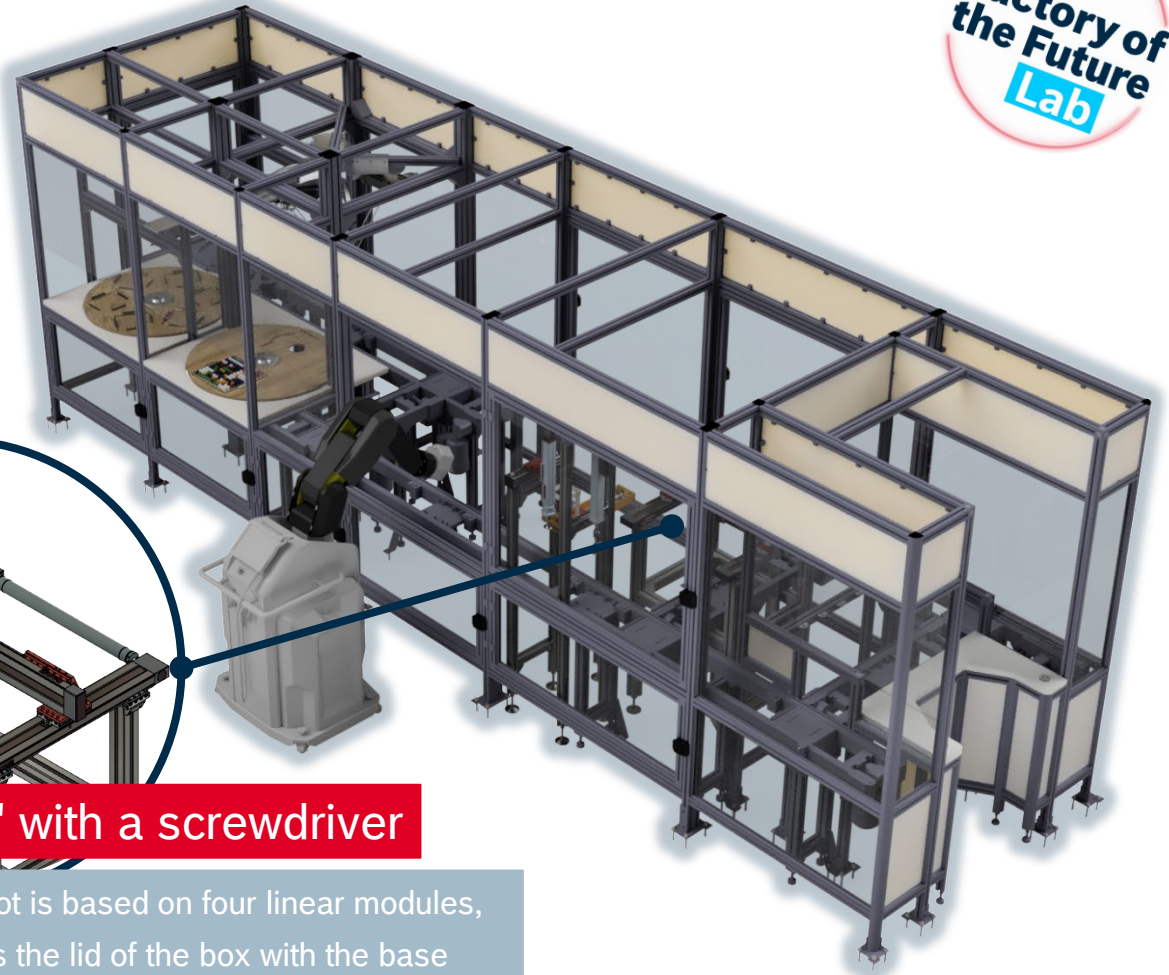


Embedded Controls

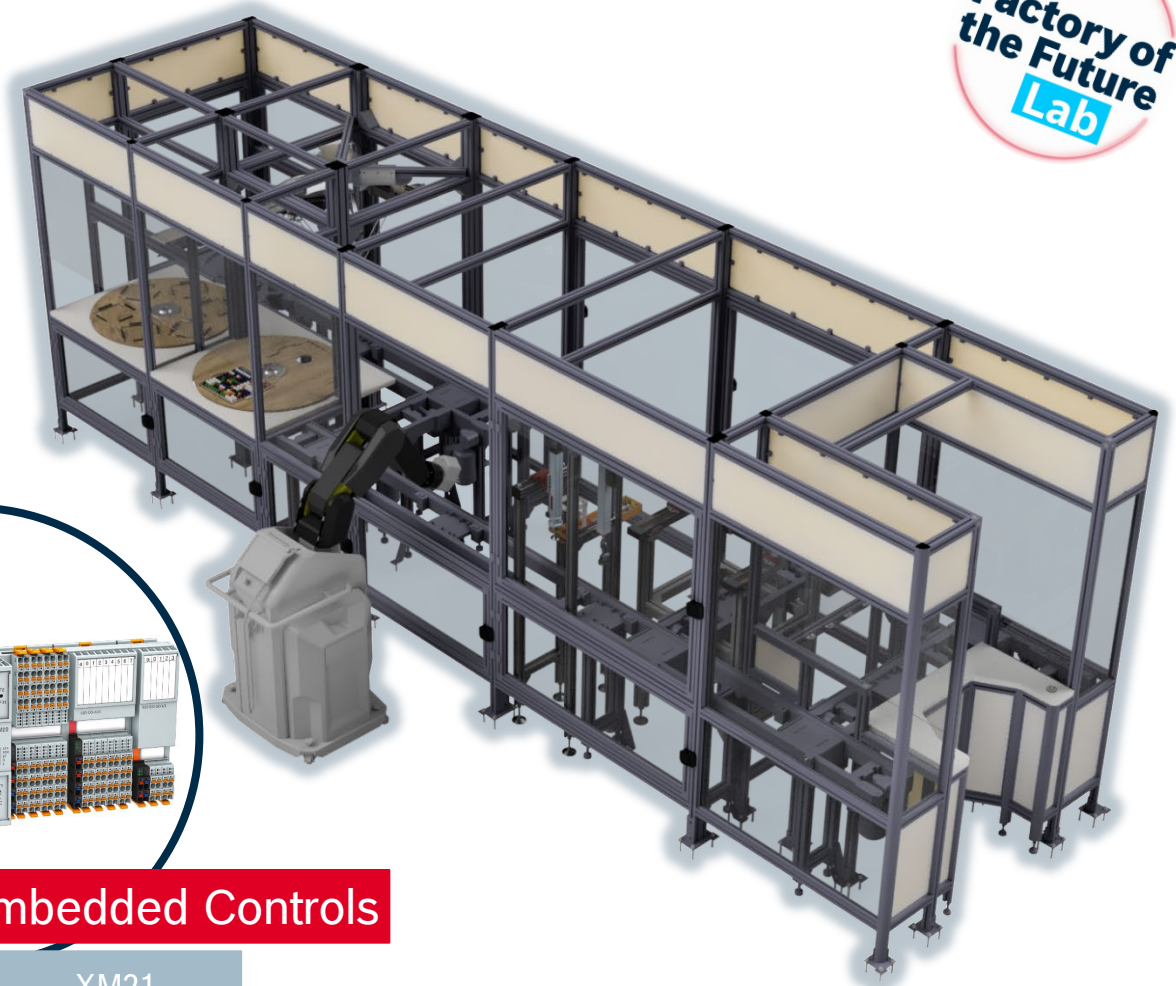


„Cartesian" with a screwdriver

The robot is based on four linear modules, twists the lid of the box with the base



# Factory of the Future Lab Production line



Industrial computer

PR43



RT-Ethernet (PROFINET)

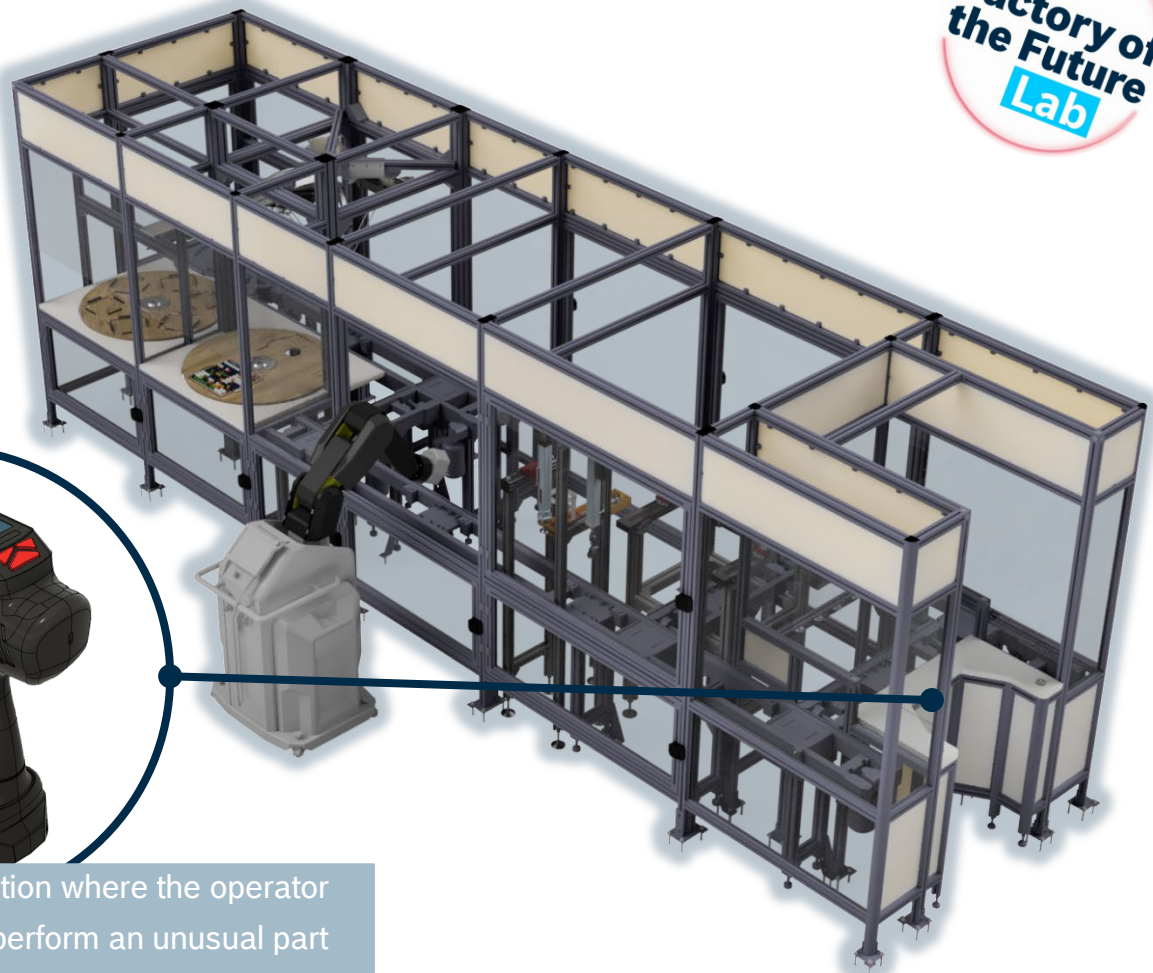
I/O system for control cabinet

Communication modules

Embedded Controls

XM21

# Factory of the Future Lab Production line



**ActiveCockpit**

Interactive information and communication platform



**Nexo**

A station where the operator can perform an unusual part of the production process



# Factory of the Future Lab Production line



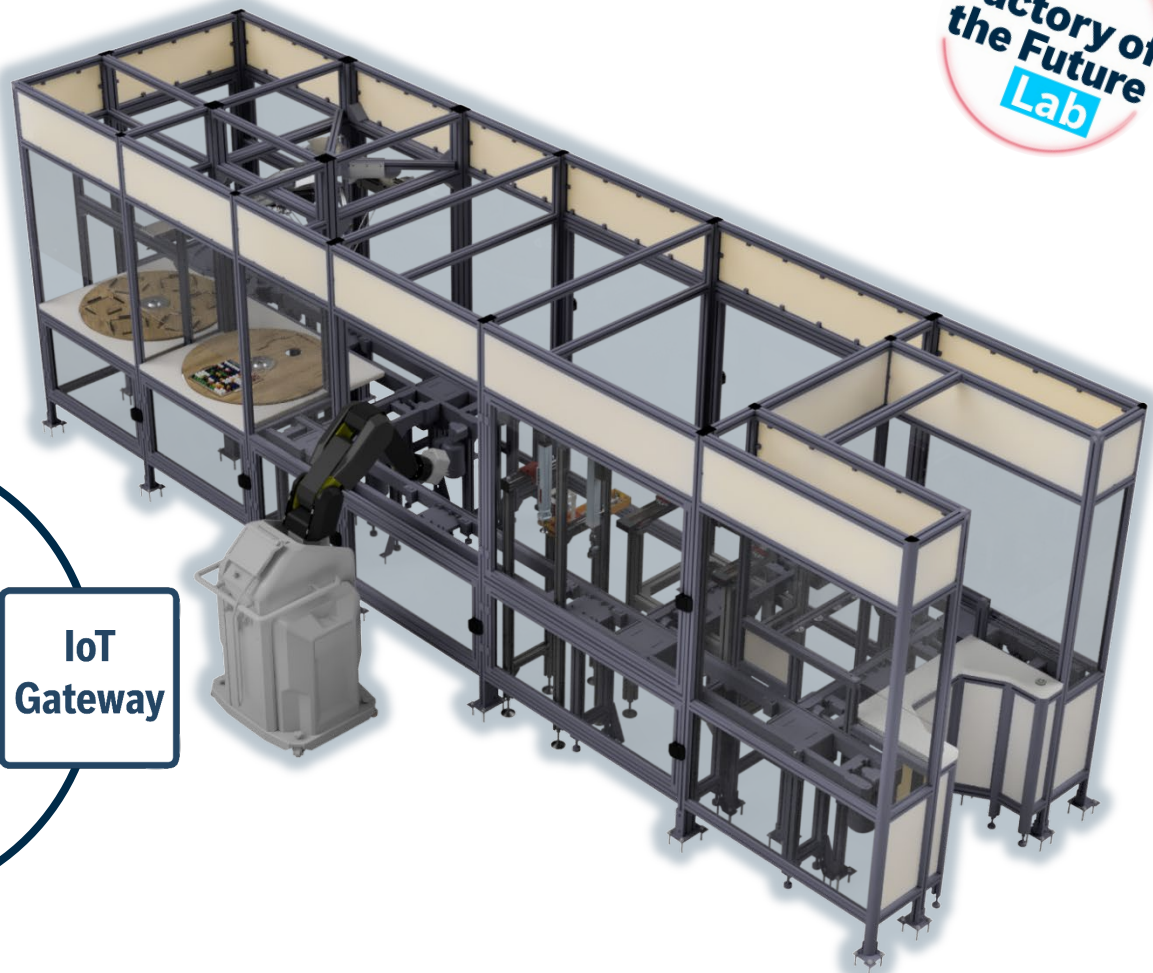
**Nexeed IAS**

Production control tools



**PR21**

IoT Gateway for PR21



# Factory of the Future Lab Production line



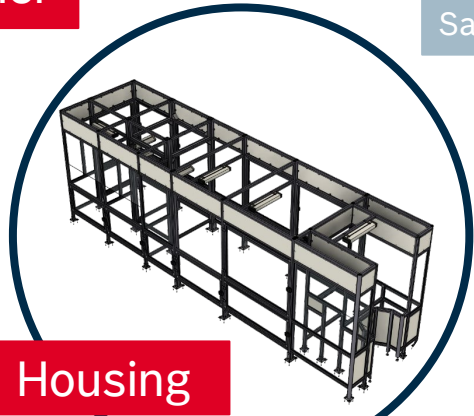
Mobile operator panel

VH2110



Safety controller

SafeLogic compact



Housing

The housing allows for safe use of the line, it has opening sensors

