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Example Applications

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Moderator Robotics
From single modules to complex robot structure
Welcome to SCHUNK – a Pioneer of Modular Robotics

Tomorrow starts today!

SCHUNK is playing a leading role in Modular Robotics. Our philosophy “from the individual modules to the complex robot system” forms the basis for implementing concepts in industrial and service robotics, which are designed for everyday life, but efficiently.

With compact and flexibly combinable rotary actuators, lightweight manipulators, and servo-electrically actuated grippers we are able to offer approaches to unique and modular designed special solutions.

It is our intention to provide robot modules for industrial and service applications, which are flexible enough for the usage in different robot applications.

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### Rotary Modules
- PR: Universal rotary module with integrated control electronics
- PRL: Compact Rotary module with integrated control electronics
- MSM: High Power Servo Motor with integrated control electronics
- MRD: High Power Rotary module with integrated control electronics
- PDM: Compact Servo Drive with integrated control electronics and precision gear
- PDU: Compact Servo Drive with integrated control electronics and precision gear

### Gripping Modules and Robotic Hands
- PG: Compact servo-electric gripper with integrated control electronics
- EVG: 2-Fingered parallel gripper with variable stroke
- EZN: Servo-electric 3-Fingered centric gripper
- EGN: Servo-electric 2-Fingered parallel gripper
- SDH: 3-Fingered dextrous robotic hand with 7 DOF
- MS: 2-Fingered parallel gripper with integrated control electronics in the fingers
- WSG: 2-Fingered parallel gripper with integrated control electronics in the fingers
- PSL: Screw driven linear axis with servo drive
- PLB: Belt driven linear axis with servo drive

### Linear Axes
- PSL: Screw driven linear axis with servo drive
- PLB: Belt driven linear axis with servo drive

### Measuring
- SEW: Vision sensor with integrated camera, lighting and analysis
- SVS-VC: Vision sensor with integrated optics, lighting and analysis

### Configuration Software
- Viro-Con: Efficient engineering tool for configuration and assembly of modular robotics

### Power Supply
- 24 DC Power Supply
- Logic Power
- 24 DC Power Supply
- Emergency Stop

### Actuation
- CAN/Profibus
- USB

### Example Kinematics
- 4 DOF PowerCube-Arm with 3 kg payload*
- 5 DOF PowerCube-Arm with 5 kg payload*
- 6 DOF PowerCube-Arm with 3 kg payload*
- 7 DOF PowerCube-Arm with 3 kg payload*
- 6 DOF PowerCube-Arm with 6 kg payload*
- 7 DOF LWA-Arm with 3 kg payload*
- 7 DOF LWA-Arm with 10 kg payload*
- 7 DOF LWA4-Arm with 10 kg payload*
- 6 DOF PBA-Arm with 3 kg payload*

### Related to the arm

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PSM
Compact Servo Drive with integrated control electronics

PDU
Compact Servo Drive with integrated control electronics and precision gear

MSM
High Power Servo Motor with integrated control electronics

PR
Universal rotary module with integrated control electronics

PW
Pan-Tilt-Unit with integrated control electronics

PRH
Miniature rotary module with integrated control electronics

PRL
Rotary module with integrated control electronics and hollow shaft

PRM
Compact Rotary module with integrated control electronics

MRD
High Power Rotary module with integrated control electronics

STM
Rotary module with torque motor

PG
Compact servo-electric gripper with integrated control electronics

EVG
2-Fingered parallel gripper with variable stroke

PEH
Long stroke gripper with integrated control electronics

EGN
Servo-electric 2-Fingered parallel gripper

EZN
Servo-electric 3-Fingered centric gripper

MEG
Gripper for small components

WSG
2-Fingered parallel gripper with integrated electronics in the fingers

PLS
Screw driven linear axis with servo drive PSM

PLB
Belt driven linear axis with servo drive PDU

SDH
3-Fingered dextrous robotic hand with 7 DOF

SVS-VC
Vision sensor with integrated optics, lighting and analysis

FT
Multi-Axis Light-Weight-Arm F/T Sensing Package

SPB
Compact wrist module with integrated control electronics

Example Kinematics

Control

Robot-Control-Software and Standard Libraries
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