

EWELLIX

A Schaeffler Company

7th axis solutions to boost your robot's capabilities



The heritage of innovation

Ewellix is a global innovator and manufacturer of linear motion and actuation solutions. Our state-of-the-art linear solutions are designed to increase machine performance, maximise uptime, reduce maintenance, improve safety and save energy. We engineer solutions for assembly automation, medical equipment, mobile machinery, distribution and a wide range of other industrial applications.

Technology leadership

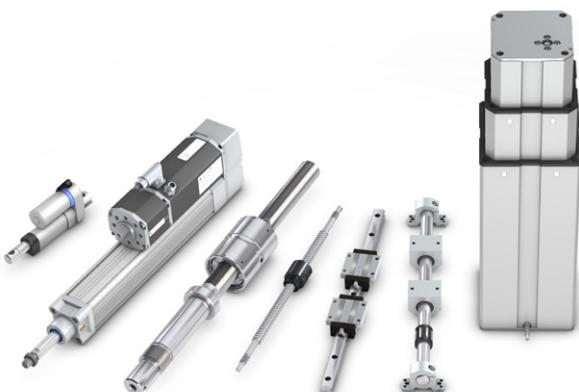
We earned our reputation through decades of engineering excellence. Our journey began over 50 years ago as part of the SKF Group, a leading global technology provider.

Our history provided us with the expertise to continuously develop new technologies and use them to create cutting edge products that offer our customers a competitive advantage.

In 2019, we became independent and changed our name to Ewellix. We are proud of our heritage. This gives us a unique foundation on which to build an agile business with engineering excellence and innovation as our core strengths.

Global presence and local support

With our global presence, we are uniquely positioned to deliver standard components and custom-engineered solutions, with full technical and applications support around the world. Our skilled engineers provide total life-cycle support, helping to optimise the design, operation and maintenance of equipment thus improving productivity and reliability while reducing costs. At Ewellix, we don't just provide products; we engineer integrated solutions that help customers realise their ambitions.



Schaeffler Group – We pioneer motion

Ewellix is since 2023 owned by the Schaeffler Group.

As a leading global supplier to the automotive and industrial sectors, the Schaeffler Group has been driving forward groundbreaking inventions and developments in the fields of motion and mobility for over 75 years.

With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, Industry 4.0, digitalization, and renewable energies, the company is a reliable partner for making motion and mobility more efficient, intelligent, and sustainable.

Schaeffler manufactures high-precision components and systems for powertrain and chassis applications as well as rolling and plain bearing solutions for a large number of industrial applications.



Increase your profitability with 7th axis solutions

Robots are one of the key players in the Industry 4.0 revolution. They are increasingly used in new applications to perform repetitive work or hazardous tasks, improving productivity and ergonomics.

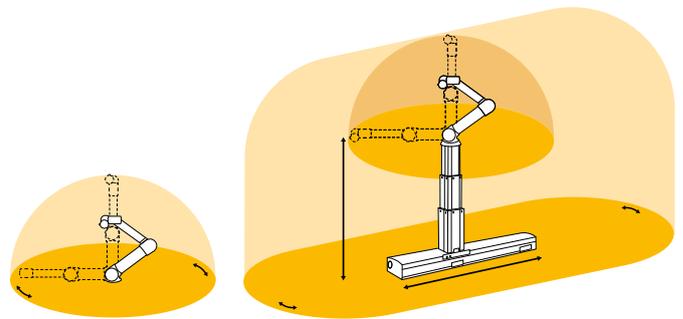
With collaborative robots, new industries can also benefit from this trend.

Robots are limited by their reach.

Solutions to extend the reach of the 7th axis for robots can significantly improve productivity in many environments with repetitive tasks.

Our additional linear axes can increase the operating range by up to 7 times by repositioning the robot's base during its work cycle.

Ewellix offers a range of linear motion axes - vertical and horizontal - to easily extend your robot's capabilities.



Sensors and edge software extend the robot operating range

- Additional linear axes increase the robot's reach by up to 7 times



High safety

- Anti-pinching function
- Emergency stop connection to robot up to safe torque off PLe, Cat.4



Easy to install plug-and-play systems

- Ready to use compatible package with leading robot brands
- Fully integrated into the robot environment



Easy maintenance

- LIFTKIT virtually maintenance free
- SLIDEKIT easy access to outside lubrication ports



High reliability

- Robust design for industrial use with high stiffness
- High positioning precision and stability
- Thousands of units working in the field in various applications since 2014

Palletizing

Fully automated pick-and-place solutions are becoming a new standard for packaging stations. The main challenge for packaging system manufacturers is to design multi-axis systems in a simple and cost effective way. A typical application that benefits from an added linear axis is palletizing of boxes. Stacking on pallets can start at floor level, but the stack can be up to 2 m high. A standard collaborative robot does not have such a large vertical working area. Ewellix provides practical solutions to perform vertical adjustment smartly.

Ewellix solutions

Features

- Longest stroke on the market to extend the operating range of the robot by up to 7 times
- Robust mechanical design for industrial use with high stiffness
- Plugin included
- Emergency stop connection to robot up to safe torque off (STO) PLe, Cat.4
- Silent and smooth motion
- General purpose version available for all cobots, controlled via digital I/O or Ethernet TCP/IP

Benefits

- Extension of the reach enables the use of a cost-effective robot
- 7th axis range extender control integrated into cobot environment and teach pendant
- Plug-and-play solution reduces time to market
- Fast safety certification process
- Improved working environment
- Easy integration into existing lines



| | LIFTKIT |
|----------------------|-------------------|
| Max. rated push load | 1 500 N |
| Max. speed | 80 mm/s |
| Max. stroke | 1 400 mm |
| Retracted length | Stroke/2 + 275 mm |
| Max. static moment | 3 000 N |

| | SLIDEKIT |
|----------------------|------------|
| Max. dynamic payload | 10 900 N |
| Max. speed | 1 000 mm/s |
| Max. stroke | 3 000 mm |
| Accuracy | ± 0,01 mm |

*More data available on request

Machine tending

Handling applications often involve travelling long distances between machines, such as loading and unloading CNC centres with machined parts. These repetitive operations, usually performed manually, are time-consuming and with low value-added to operators.

By using a robot on the Ewellix SLIDEKIT, it is possible to easily automate this handling process and increase its productivity and reliability. In addition, SLIDEKIT enables fast and precise movements to position the robot along horizontal axes effectively.

Ewellix solutions

Features

- Longest stroke on the market to extend the operating range of the robot by up to 3 times
- Robust mechanical design for industrial use with high stiffness
- Plugin included
- Emergency stop connection to robot up to safe torque off (STO) PLe, Cat.4
- Smooth and fast positioning
- General purpose version available for all cobots, controlled via digital I/O
- Speed control and acceleration of the SLIDEKIT
- High accuracy and repeatability
- Cable management included

Benefits

- Extension of the reach enables the use of a cost-effective robot
- 7th axis range extender control integrated into cobot environment and teach pendant
- Plug-and-play solution reduces time to market
- Fast safety certification process
- Improved working environment
- Easy integration into existing lines



SLIDEKIT

| | |
|----------------------|------------|
| Max. dynamic payload | 10 900 N |
| Max. speed | 1 000 mm/s |
| Max. stroke | 3000 mm |
| Accuracy | ± 0,01 mm |

*More data available on request

Construction

Construction is a labour-intensive industry with many repetitive tasks that can be physically demanding, monotonous, and dangerous.

The LIFTKIT enables the use of robots on construction sites by increasing the reach by up to 3 times. LIFTKIT improves the flexibility of construction works such as bricklaying, plastering, grinding and painting.

Construction robots guarantee accuracy and reduce human error, which significantly reduces the number of injuries on construction sites.

As a result, robots can work much longer with consistent quality while employees focus on more value-added tasks.

Ewellix solutions

Features

- Longest stroke on the market to extend the operating range of the robot by up to 3 times
- Stroke modularity in one footprint
- Low weight with a compact footprint
- Plugin included
- Emergency stop connection to robot up to safe torque off (STO) PLe, Cat.4
- Smooth and fast positioning
- General purpose version available for all cobots, controlled via digital I/O or Ethernet TCP/IP

Benefits

- Extension of the reach enables the use of a cost-effective robot
- Enhanced integration in the customer application
- 7th axis range extender control integrated into cobot environment and teach pendant
- Improved battery autonomy
- Plug-and-play solution reduces time to market
- Fast safety certification process
- Increased productivity and shorter return on investment



LIFTKIT

LIFTKIT

| | |
|----------------------|-------------------|
| Max. rated push load | 1 500 N |
| Max. speed | 80 mm/s |
| Max. stroke | 1400 mm |
| Retracted length | Stroke/2 + 275 mm |
| Max. static moment | 3 000 N |

*More data available on request

Life sciences

New technologies improve laboratory equipment. Robotics plays an increasingly important role in the life sciences. As a result, labs are moving towards using robots for automated fluid processing and diagnostic systems.

Our plug-and-play LIFTKIT extends the robot's reach and facilitates complex movements that enable out-of-reach tasks.

Our plug-and-play SLIDEKIT optimises the accuracy and repeatability of autonomous vehicles (AV).

The compact electromechanical floor lock actuator CAFL increases the stability of the mobile base.

While repetitive tasks are automated and completed with higher productivity, the employees can focus on higher value-added tasks.

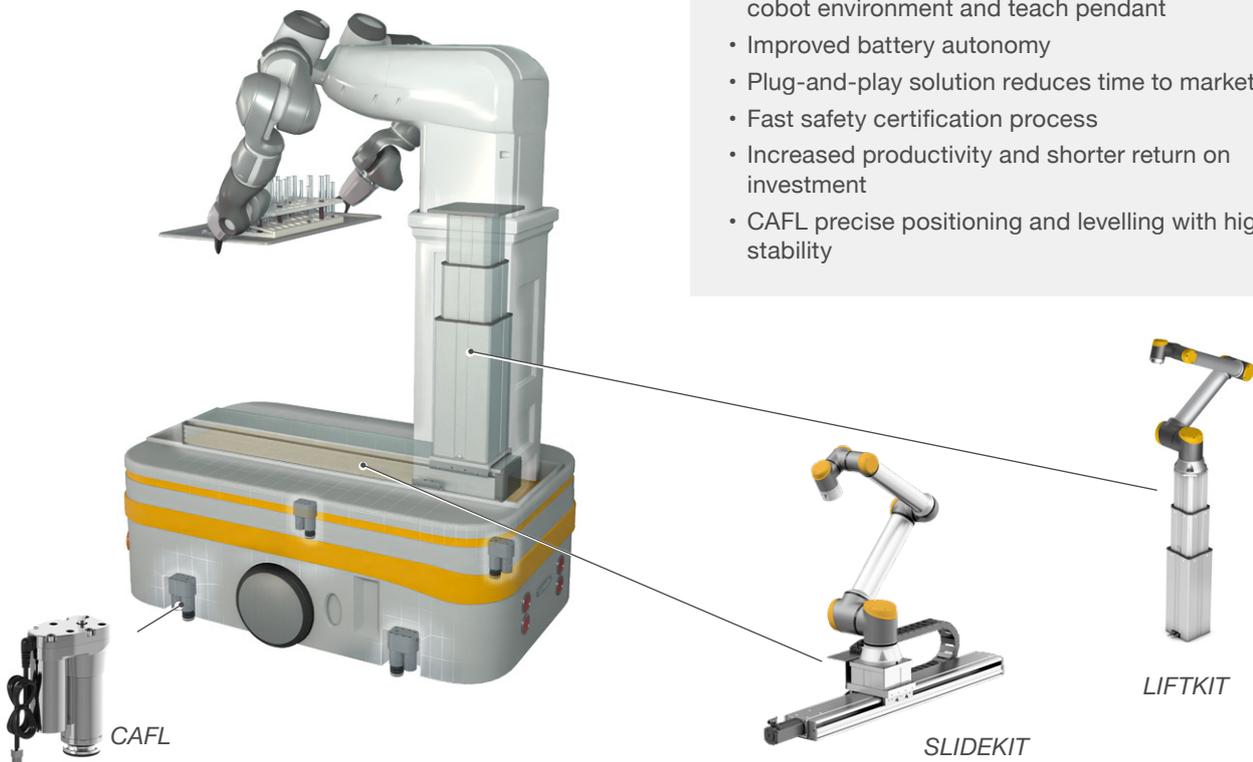
Ewellix solutions

Features

- Longest stroke on the market to extend the operating range of the robot by up to 7 times
- Low weight with a compact footprint
- Plugin included
- Emergency stop connection to robot up to safe torque off (STO) PLe, Cat.4
- Silent and smooth motion
- General purpose version available for all cobots, controlled via digital I/O or Ethernet TCP/IP
- CAFL compact and powerful actuator

Benefits

- Extension of the reach enables the use of a cost-effective robot
- Enhanced integration in the customer application
- 7th axis range extender control integrated into cobot environment and teach pendant
- Improved battery autonomy
- Plug-and-play solution reduces time to market
- Fast safety certification process
- Increased productivity and shorter return on investment
- CAFL precise positioning and levelling with high stability



| CAFL | |
|----------------------|----------------|
| Max. rated push load | 1 700 N |
| Max. speed | 12 mm/s |
| Max. stroke | 27 to 50 mm |
| Retracted length | Stroke + 88 mm |
| Max. static moment | 6 800 N |

| SLIDEKIT | |
|----------------------|------------|
| Max. dynamic payload | 10 900 N |
| Max. speed | 1 000 mm/s |
| Max. stroke | 3 000 mm |
| Accuracy | ± 0,01 mm |

| LIFTKIT | |
|----------------------|-------------------|
| Max. rated push load | 1 500 N |
| Max. speed | 80 mm/s |
| Max. stroke | 1 400 mm |
| Retracted length | Stroke/2 + 275 mm |
| Max. static moment | 3 000 N |

*More data available on request

Autonomous vehicles

Autonomous vehicles (AV) that transport a wide range of products or perform archiving/inspection tasks sometimes in harsh environments are becoming increasingly popular in today's fast-moving environment.

Our plug-and-play LIFTKIT creates a vertical axis to extend the performance of the AV's 6th axis robot.

The electromechanical actuators CAHB-2x lift a few tones, and provide efficiency, ease of operation and positioning with feedback.

Wherever the robot needs to perform precise tasks, the compact electromechanical floor lock actuator CAFL increases the stability of the mobile base.

Expand the potential of autonomous vehicles (AV) with Ewellix solutions.

Ewellix solutions

Features

- Longest stroke on the market to extend the operating range of the robot by up to 3 times
- Stroke modularity in one footprint
- Low weight with a compact footprint
- Plugin included
- Emergency stop connection to robot up to safe torque off (STO) PLe, Cat.4
- Silent and smooth motion
- General purpose version available for all cobots, controlled via digital I/O or Ethernet TCP/IP
- CAFL compact and powerful actuator
- CAHB-2x with integrated controller with BUS communication

Benefits

- Extension of the reach enables the use of a cost-effective robot
- Enhanced integration in the customer application
- 7th axis range extender control integrated into cobot software and teach pendant
- Improved battery autonomy
- Plug-and-play solution reduces time to market
- Fast safety certification process
- Increased productivity and shorter return on investment
- CAFL precise positioning and levelling with high stability
- CAHB-2x with position feedback and on-board diagnostic



CAHB-2x

| CAFL | |
|----------------------|----------------|
| Max. rated push load | 1 700 N |
| Max. speed | 12 mm/s |
| Max. stroke | 27 to 50 mm |
| Retracted length | Stroke + 85 mm |
| Max. static moment | 7 500 N |

| LIFTKIT | |
|----------------------|-------------------|
| Max. rated push load | 1 500 N |
| Max. speed | 80 mm/s |
| Max. stroke | 1 400 mm |
| Retracted length | Stroke/2 + 275 mm |
| Max. static moment | 3 000 N |

| CAHB-2x | |
|----------------------|-----------------|
| Max. rated push load | 10 000 N |
| Max. speed | 57 mm/s |
| Max. stroke | 700 mm |
| Retracted length | Stroke + 160 mm |
| Max. static moment | 20 000 N |

*More data available on request



Inspection robot



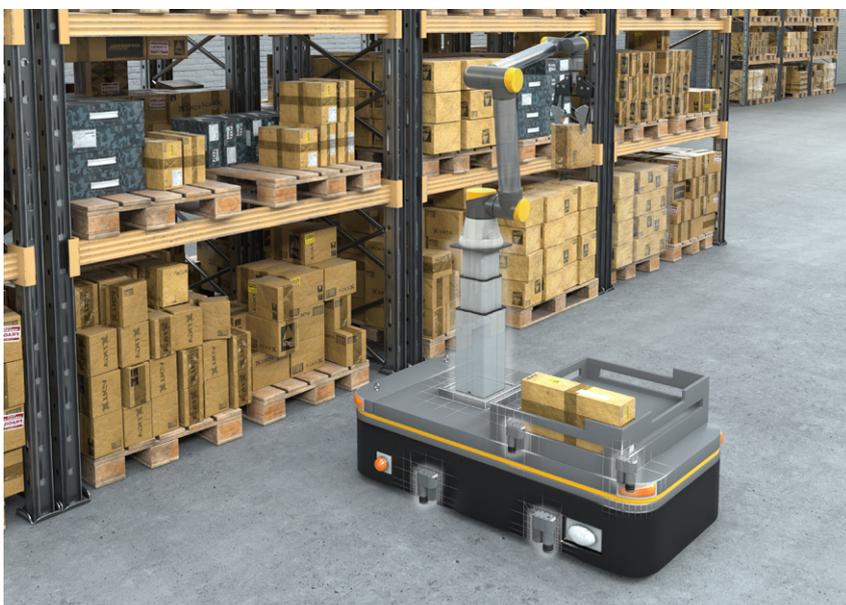
LIFTKIT



Archive robot



CAFL



Material handling robot

Automated professional kitchens

Fast and automated kitchens are becoming increasingly popular, especially for restaurants, as they help to close staff gaps, speed up processes, shorten waiting times and extend opening hours.

Thanks to the extended reach of the plug-and-play SLIDEKIT, one robot can operate between different kitchen appliances.

Automated kitchens allow hygienic cooking with consistent quality at any time.

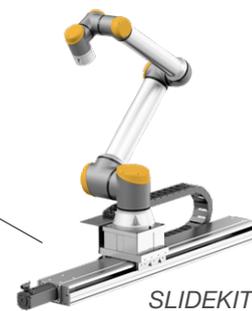
Ewellix solutions

Features

- Longest stroke on the market to extend the operating range of the robot by up to 3 times
- Compact footprint
- Plugin included
- Emergency stop connection to robot up to safe torque off (STO) PLe, Cat.4
- Silent and smooth motion
- General purpose version available for all cobots, controlled via digital I/O or Ethernet TCP/IP
- Speed control and acceleration of the SLIDEKIT
- High accuracy and repeatability

Benefits

- Extension of the reach enables the use of a cost-effective robot
- Enhanced integration in the customer application
- 7th axis range extender control integrated into cobot software and teach pendant
- Plug-and-play solution reduces time to market
- Fast safety certification process
- Increased productivity and shorter return on investment
- Flexible and precise motion



SLIDEKIT

| | |
|----------------------|------------|
| Max. dynamic payload | 10 900 N |
| Max. speed | 1 000 mm/s |
| Max. stroke | 3 000 mm |
| Accuracy | ± 0,01 mm |

Welding robot

Welding applications often require semi-automated processes to increase productivity and quality.

Our plug-and-play SLIDEKIT offers an extended robot reach of up to 3 times and accurate repetitive positioning. Complex welding operations on long parts or repetitive welding operations are ensured qualitatively.

While our SLIDEKIT enables long welding cycles, the operator can focus on more value-added tasks such as programming, production management and quality control.

Ewellix solutions

Features

- Longest stroke on the market to extend the operating range of the robot by up to 3 times
- Robust mechanical design for industrial use with high stiffness
- Stroke modularity in one footprint
- Plugin included
- Emergency stop connection to robot up to safe torque off (STO) PLe, Cat.4
- Smooth and fast positioning
- General purpose version available for all cobots, controlled via digital I/O or Ethernet TCP/IP
- Speed control and acceleration of the SLIDEKIT
- High accuracy and repeatability

Benefits

- Extension of the reach enables the use of a cost-effective robot
- High stability
- Enhanced integration in the customer application
- 7th axis range extender control integrated into cobot software and teach pendant
- Plug-and-play solution reduces time to market
- Fast safety certification process
- Increase productivity and shorter return on investment
- Improved working environment
- Flexible and precise motion



SLIDEKIT

| | |
|----------------------|-----------|
| Max. dynamic payload | 10 900 N |
| Max. speed | 1000 mm/s |
| Max. stroke | 3 000 mm |
| Accuracy | ± 0,01 mm |

*More data available on request

Final inspection processes

Automotive production lines must be highly flexible and adaptable to remain competitive and cost-effective in a fast-changing industry.

Ewellix provides practical solutions to complete vertical and horizontal adjustments smartly. They are designed for different applications, giving your robot an extended operating range to perform manufacturing processes like finishing and parts inspection. Whenever you need a repetitive operation, usually done manually, that is time-consuming and low value-added for the operators, such as end-of-line quality inspection, our LIFTKIT and SLIDEKIT can guarantee precision and reliability to maximise your results and automate these processes. Below is an application example in automotive assembly lines, with custom LIFTKIT and SLIDEKIT axes for ceiling mount installation.

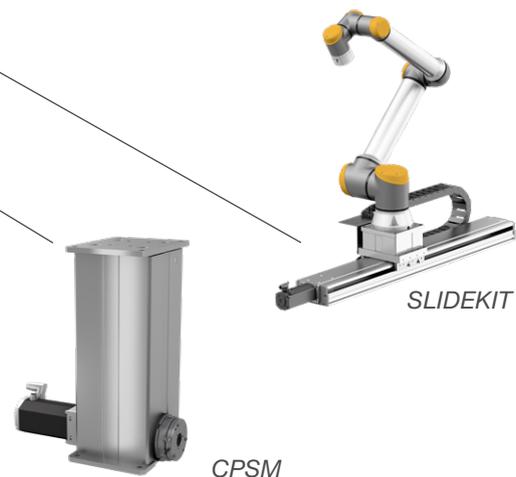
Ewellix solutions

Features

- Longest stroke on the market to extend the operating range of the robot by up to 7 times
- Robust mechanical design for industrial use with high stiffness
- Stroke modularity in one footprint
- Emergency stop connection to robot up to safe torque off (STO) PLe, Cat.4
- Silent and smooth motion
- Fast positioning
- General purpose version available for all cobots, controlled via digital I/O or Ethernet TCP/IP
- Speed control and acceleration of the SLIDEKIT and CPSM
- High accuracy and repeatability

Benefits

- Extension of the reach enables the use of a cost-effective robot
- High stability
- Plug-and-play solution reduces time to market
- Improve working environment
- Fast safety certification process
- Increased productivity and shorter return on investment



| | SLIDEKIT |
|----------------------|------------|
| Max. dynamic payload | 10 900 N |
| Max. speed | 1 000 mm/s |
| Max. stroke | 3 000 mm |
| Accuracy | ± 0,01 mm |

| | CPSM |
|-------------------|-----------|
| Max. dynamic load | 5 000 N |
| Max. speed | 100 mm/s |
| Max. stroke | 700 mm |
| Accuracy | ± 0,01 mm |

Products overview

Liftkit

The **LIFTKIT** is an effective solution extending the reach of the robot along the vertical axis to save cost and increase productivity.

Thanks to its precise movement the LIFTKIT raises or lowers the robot always to the optimal position.

It comes with fully integrated software and is plug-and-play.



Slidekit

The **SLIDEKIT** enables fast movement along the horizontal axis and precise positioning to increase productivity and save costs. The stability and reactivity of the system guarantees an elevated level of output quality. The SLIDEKIT comes with a fully integrated software and is plug-and-play.



CPSM

The lifting columns of the **CPSM** series are an ideal mix of high-performance guide mechanisms and powerful linear movements. The robust, manually adjustable and practically backlash-free extruded aluminium profiles can carry high eccentric loads. Thanks to their brushless DC motors or servo motors, the columns can quickly lift and lower the heaviest of loads.



CAFL

Electromechanical floor lock actuators **CAFL** are small and compact low-voltage linear actuators. They are driven and controlled by a control unit (CU). Due to the robust design of the drive, it also keeps the mobile application in position when it is not being powered. In addition, the Ewellix floor lock actuator is maintenance-free for its working life.



CAHB

CAHB Linear actuators are engineered to operate in severe environments and consist of robust metal gears with corrosion-resistant housings.

CAHB series with 7 families of linear actuators, virtually maintenance-free, covers low, medium and high loads for mobile applications. Additional design options are available, such as limit switches, positioning feedback and manual override.



Your engineering partner

Customisation

Ewellix has many years of expertise in linear motion solutions that meet the needs of customers across different industries and applications.

Our various designs and features are suitable for virtually all applications regarding cost, size, accuracy and motion patterns. Ewellix's expertise in standard and custom linear motion solutions is based on engineering and design know-how of processes and precision parts.

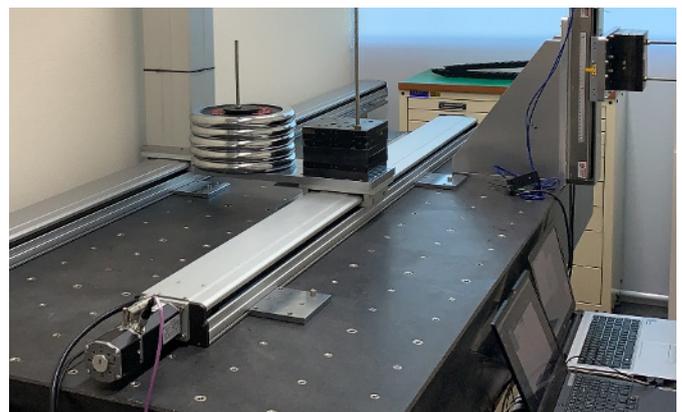


Tested for your environment

Ewellix's expertise in mechanics and electronics and specific application requirements contribute to developing solutions to meet customers' expectations. In addition, we verify our products by a comprehensive test plan to guarantee performance.



CPSM testing

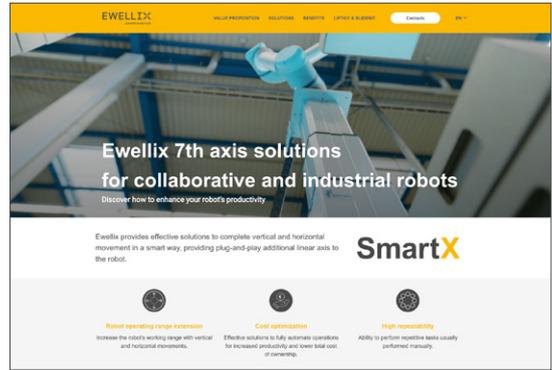


SLIDEKIT testing

Supporting tools

Ewellix 7th axis solutions for collaborative and industrial robots

Discover how to enhance your robot's productivity:
<https://www.ewellix.com/robotics/en/>



Digital tools

Ewellix has developed numerous online tools to help customers select and calculate the most suitable Ewellix product for their application.

Actuators select

- Product selection
- Performance calculator
- Cost-saving calculator

<https://www.ewellix.com/en/product-selectors/actuator-select>



Publications

Supporting documents are available for downloading on ewellix.com on each product page under the technical data section:

- Operating manual
- Mounting instructions

LIFTKIT

[Click to open](#)



CAFL

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SLIDEKIT

[Click to open](#)



CAHB series

[Click to open](#)



CPSM

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