

Linear Axes — Application Examples

This page shows typical applications where NILAB linear axes are used, and the axis family that fits each. Use it to see how a NILAB axis can be integrated into a machine like yours.

Packaging, wrapping and food & beverage

- **RM Linear Axis** — high-speed, high-acceleration axis with an integrated guide and an absolute encoder. Typical: wrapping machines, packaging machines, diaper production, food and beverage production. - **GDM** — module version with carriage, for off-axis payload and multi-axis packaging lines.

Pick-and-place and assembly

- **NLiP Parallel Kinematic Robot** — a 2D pick-and-place robot based on two miniature integrated-drive linear motors; handles parts up to 2 kg with high acceleration in a small space; programmed with NILAB Starter. - **MCSS Mini Linear Slides** — compact, high-precision slides with an integrated drive, plug-and-play, for assembly and precision handling.

Machine tools and machining

- **LM Linear Axis** — long stroke, high force, on an aluminium profile; suitable for machining centres, transfer lines, and high-performance feed axes. - **GDM** — module for off-axis and multi-axis machining applications.

Pharma, medical and life science

- **NL / MCSS** — compact, high-precision, integrated drive; suitable for pharma and medical applications. - **Nano Positioners** — nano-positioning for life-science applications.

Woodworking, paper and textile

- **ULCO** — modular, belt-driven, quiet; ideal for small-to-medium power automation on one or multiple axes. - **GDM / LM** — for longer strokes and higher forces.

How to choose

- See [Axis selection](#) to compare the families. - See [Application range](#) for the technology benefits (speed, precision, no transmission, maintenance-free). - See [Axis sizing](#) to dimension the axis.

Related pages

* [Linear axes selection](#) * [Application range](#) * [NLiP Parallel Kinematic Robot](#) * [Multi-axis systems](#)

From:

<https://www.nilab.at/dokuwiki/> - **NiLAB GmbH**

Knowledgebase

Permanent link:

https://www.nilab.at/dokuwiki/doku.php?id=en:linear_axes:applications

Last update: **2026/09/13 13:48**

