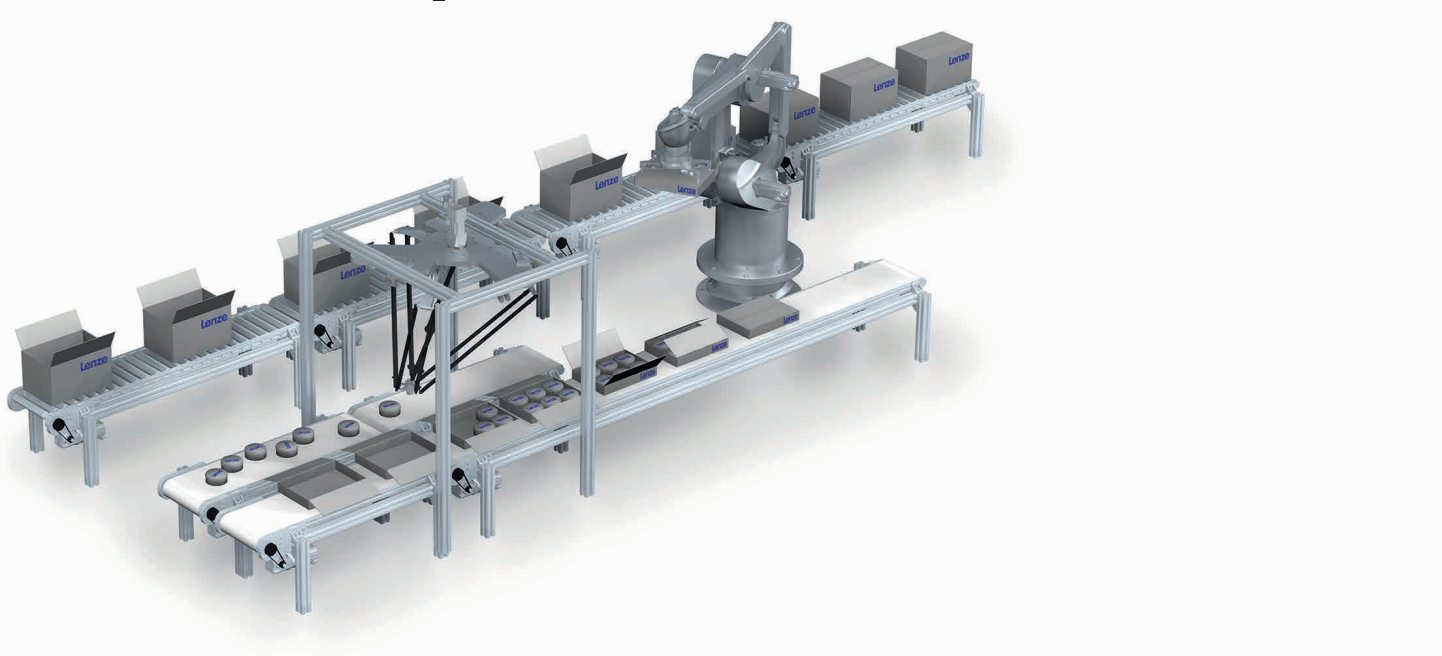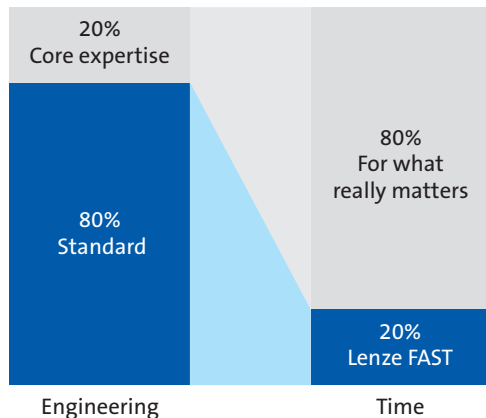## Lenze FAST
Application Software Toolbox

Get robots moving – it's easy.

FAST goes robotics:
Ready-made robotics modules make it extremely easy to integrate kinematics into the entire automation process. Technology modules for Pick & Place applications are available for this purpose, with models designed for different kinds of kinematics. A fully functional robotics core is already integrated to ensure the greatest possible degree of freedom.

- 20% Core expertise
- 80% Standard
- 80% For what really matters
- 20% Lenze FAST

Engineering   Time

Highlights

- Up to 80% of software engineering requirements are covered by Lenze FAST
- Spatial movements based on a powerful robotics core with six degrees of freedom
- Motion planning is based on PLCopen Part4, for all main and auxiliary axes
- Thanks to the encapsulated path-planning system in the FAST technology module, no knowledge of robot programming is required
- Structured programming layout via the Application Template
- Software is rigorously tested for flawless operation

Lenze

The robotics modules for your machine

Modular programming

When using FAST, automation controls engineers can program quickly using a basic architecture. The functions are encapsulated in the individual modules.

The modules are autonomous and can easily be exchanged and tested completely independently. This makes engineering fast, easy and reliable.
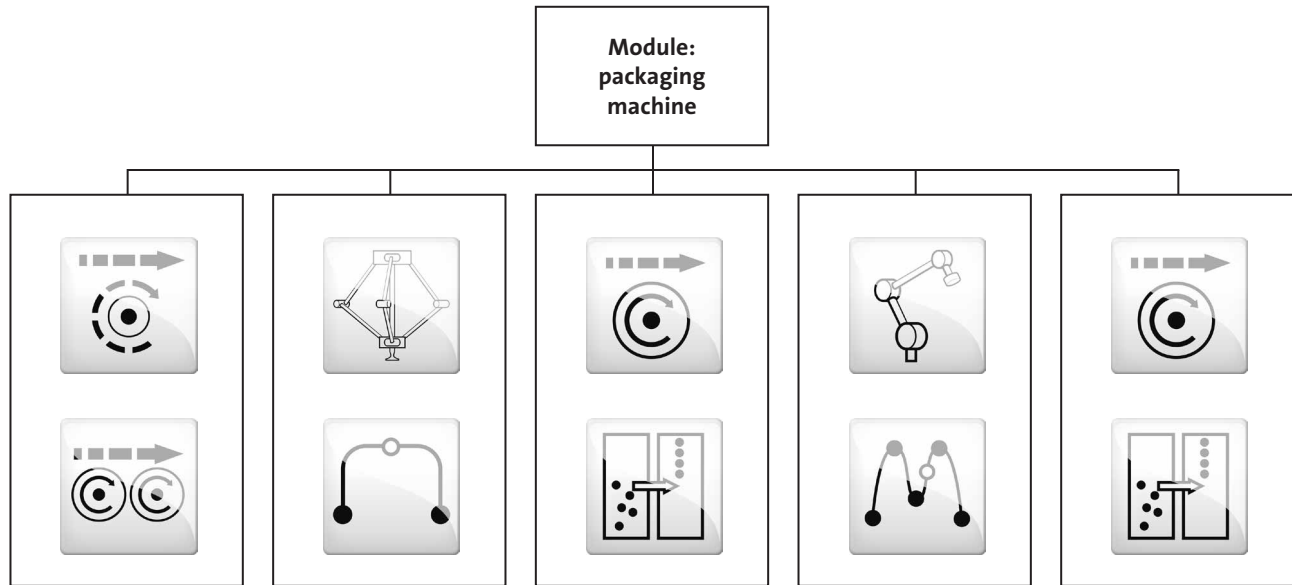
Lenze FAST	Description
Basic Motion	Basic functions for the drive
Virtual Master	Basic module for general machine tasks, virtual master axis in the machine
Electrical Shaft Position	Electrical Shaft Position Positioning products with accurate rotor position synchronization and coupling of axes
Electrical Shaft Velocity	Synchronizm across multiple stations, speed-accurate synchronization and coupling of axes
Pick & Place Basic	Create simple Pick & Place profiles with diverse kinematics, e.g. Delta3 robots
Pick & Place Advanced	Create Pick & Place profiles of up to 10 interpolation points with diverse kinematics, e.g. articulated robot
Tracking Management	Workpiece tracking and synchronizing

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