

***STXi*Motion**  
Motion. Optimized.



# Our Journey in Motion

## Motion. Optimized.

Combining unmatched industry expertise with innovative technologies, we deliver advanced, integrated motion control and servo solutions. Our comprehensive product lines - including servo drives, gear motors, and integrated systems - are optimized and engineered to meet the unique needs of diverse industries, from mobile robotics to electronics assembly, printing, textile manufacturing, and medical equipment. Our goal is to empower machine builders and industrial automation providers to optimize their machine designs, enhance efficiency, and gain a competitive edge in the rapidly evolving automation landscape.

Emerged from Servotronics with over 30 years of experience, STXI was established as an independent global motion control provider.



Setup of own production and assembly facility for integrated drive motors at high volume for global customers.



Addition of the new-gen TIM integrated servo motors series.



Addition of Fail Safe over EtherCAT motion solutions to the growing demands of mobile and industrial applications.

2019

**STXi**Motion

2020

1st STXI's-own all-in-one motion system for the rapidly growing intralogistics and mobile robotics market, matching market demands following Covid-19.

2021



2022

Successful implementation and ramp-up production of STXI's new products with several leading AGV/AMR manufacturers.

2023



2024

Fast configuration of gearmotor solutions and motor design innovations.



2025



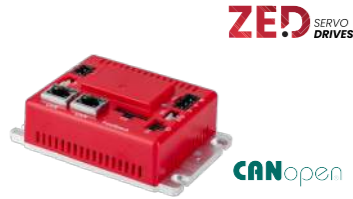
Safety over EtherCAT

### Empowering Innovation Through Motion

We enable our customers to focus on their core products with confidence and ease—minus the motion headaches.

# Market-Driven Motion Solutions

## SERVO DRIVES



ZED SERVO DRIVES

CANopen

### ZED 15 Low Voltage Servo Drives

- Current (cont./peak): 12/40 A rms
- Voltage: 24 VDC



ZED SERVO DRIVES

CANopen

### ZED 25, 30 Low Voltage Servo Drives

- Current (cont./peak): 20/70 A rms
- Voltage: 24/48 VDC



ZED SERVO DRIVES

EtherCAT  
CANopen

### ZED 65 Low Voltage Servo Drives

- Current (cont./peak): 45/135 A rms
- Voltage: 48 VDC



### CDHD2 LV Low Voltage Servo Drives

- Current (cont./peak): 3/30 A rms
- Voltage: 20-90 VDC



### CDHD2S Medium & High Voltage Servo Drives

- Current (cont./peak): 1.5/180 A rms
- Voltage : 120/240 VAC , 400/480 VAC

## SERVO MOTORS



MOT SERVO MOTORS

### MOT-PM Low Voltage Servo Motors

- Power: 50 W – 3 kW
- Rated speed: 3000-3200 rpm
- Rated torque: 0.16-9.55 Nm
- Voltage: 24/48 VDC



### PH3 High Performance Servo Motors

- Power: 0.1-7.5 kW
- Rated speed: 1500-3000 rpm
- Rated torque: 0.16-48 Nm
- Voltage: 220/380 VAC

## INTEGRATED MOTORS



TiM INTEGRATED MOTORS

EtherCAT  
CANopen

### TiM Integrated Servo Motors

- Power: 200 – 800 W
- Rated speed: 3000 rpm
- Rated torque: 0.64 - 2.55 Nm
- Voltage: 24/48 VDC



stepIM  
Powered by SERVOTONIX

EtherCAT  
CANopen

### stepIM Integrated Stepper Motors

- Nema 17,23,34. Stack 1-3
- Rated speed: 1000 rpm
- Holding torque: 0.35-7.7 Nm
- Voltage: 14-75 VDC

## GEAR MOTORS



TiM INTEGRATED MOTORS

EtherCAT  
CANopen

### TiM-SG Integrated Gear Motors

- Power: 200 – 800 W
- Rated speed: 75-3000 rpm
- Rated torque: 6.4-64 Nm
- Voltage: 24/48 VDC



MOT SERVO MOTORS

### MOT-SG Gear Motors

- Power: 200 – 800 W
- Rated speed: 75-3000 rpm
- Rated torque: 6.4-64 Nm
- Voltage: 24/48 VDC

## WHEEL HUB GEAR MOTORS



MOT SERVO MOTORS

### MOT-HM Ultra Compact Wheel Hub Gear Motors

- Power: 1.4 kW
- Rated speed: 300 rpm
- Rated torque: 45.7 Nm
- Voltage: 48 VDC



MOT SERVO MOTORS

### MOT-GM Wheel Hub Gear Motors

- Power: 200 – 3 kW
- Rated speed: 151-3000 rpm
- Rated torque: 5.3-36 Nm
- Voltage: 24/48 VDC



TiM INTEGRATED MOTORS

EtherCAT  
CANopen

### TiM-GT Wheel Hub Integrated Gear Motors

- Power: 200 – 800 W
- Rated speed: 133-3000 rpm
- Rated torque: 5.3-45 Nm
- Voltage: 24/48 VDC

# Functional Safety. Simplified. Integrated.

STXI Motion's TIM Integrated Motors and ZED 65 Drive deliver advanced functional safety with a fully integrated Safe Motion Module, ensuring precise, reliable protection for mobile robots and automation systems.

Going beyond Safe Torque Off (STO), the module includes a full suite of safety functions - such as Safe Stop, Safely Limited Speed, and Safe Direction - designed to meet IEC 61800-5-2 standard.

With Fail Safe over EtherCAT (FSoE), this solution eliminates the need for additional wiring, reducing complexity while maintaining highperformance motion control in space-constrained environments.

**TiM** INTEGRATED MOTORS



Safety over  
**EtherCAT**



**ZED** SERVO DRIVES



**EtherCAT**

**CANopen**

### Safe Motion Module supported functions:

- Safe Torque Off (STO)
- Safe Stop 1 (SSI-t, time-controlled)
- Safe Brake Control (SBC)
- Safe Stop 1 (SSI-r, ramp-monitored)
- Safe Stop 2 (SS2-r, ramp-monitored)
- Safe Operating Stop (SOS)
- Safely Limited Speed (SLS)
- Safe Brake Test (SBT)
- Safe Speed Monitor (SSM)
- Safe Direction (SDI)



ZED 65 Servo Drive



TiM Integrated Servo Motor

Safety over  
**EtherCAT**

## Functional Safety Applications



Mobile robots navigating dynamic environments



Shuttles and conveyors in smart factories



Collaborative platforms requiring safe human interaction



Industrial and multi-axis machines with safe speed zones



Space-limited equipment supporting distributed control, or cabinet free topologies

### Safe Motion Inside

Explore how our safe motion solutions are integrated into our leading products, with built-in STO or extended Safe Motion Module

- Fully Integrated Safe Motion Module
- Optional Safety card in TIM Integrated Motors and ZED 65 Drives
- Safety over EtherCAT (FSoE)
- According to IEC 61800-5-2 standard

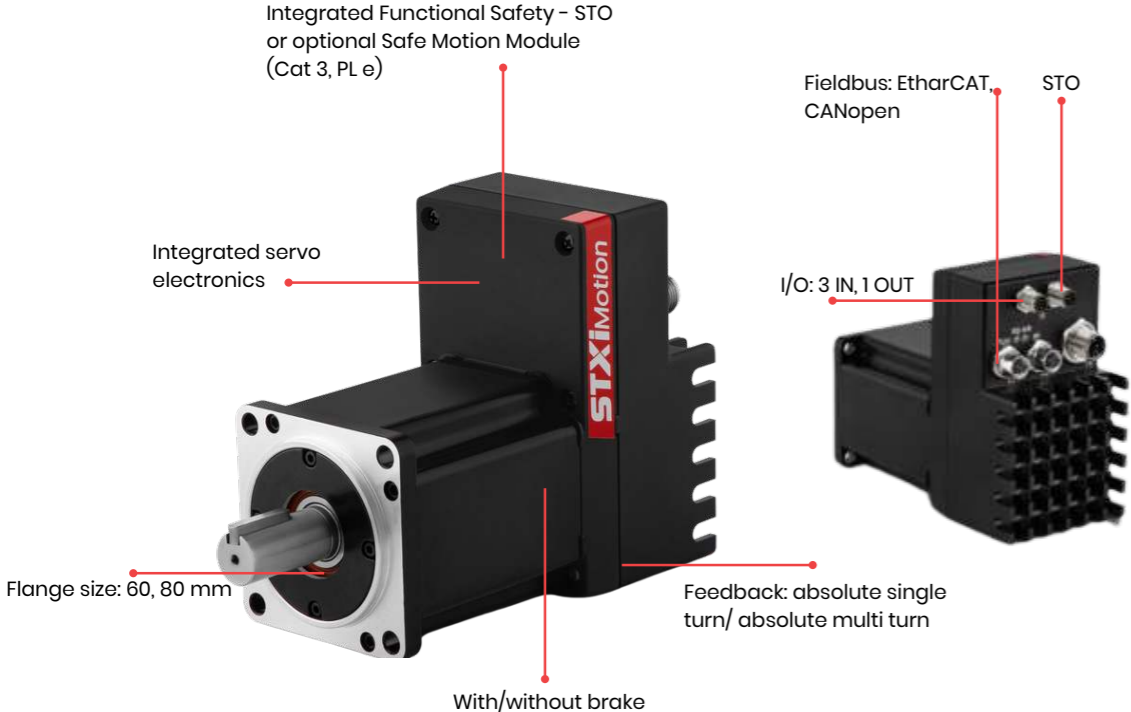
# Cabinet-Free Motion.

## Optimal Efficiency.

Our extensive line of integrated drive-motors for decentralized machine architecture enhances machine performance while reducing overall production costs. Designed for maximum efficiency, our integrated stepper and servo motors allow machine builders to gain design flexibility and machine modularity, while also offering shorter build cycles and a reduced footprint.

**Meet TiM:**

TiM is a compact integrated servo motor that eliminates control cabinets, cuts wiring, and frees valuable machine space. With 48-60 VDC low-voltage power, optional integrated Safe Motion Module (FSoE), and CANopen or EtherCAT connectivity – the TiM integrated motors offer motor control, safety and design flexibility in a single compact package.



### 1

**Less Cabling & Installation Efforts**

Supporting our customers in converting their motion needs to optimized product specifications.

### 2

**Space-saving design**

Compact, all-in-one units eliminate the need for external drives and cabinets, segment-optimized solutions.

### 3

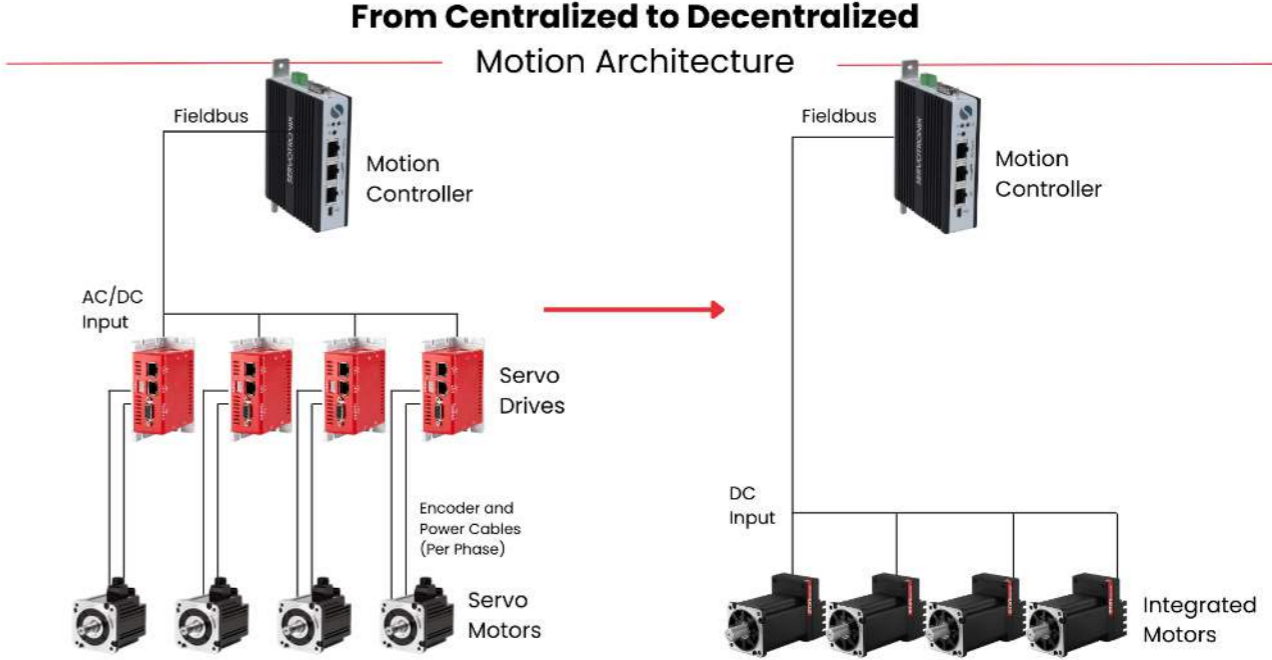
**Greater flexibility**

Modular, decentralized setups allow quick adaptation to machine layouts.

### 4

**Higher efficiency**

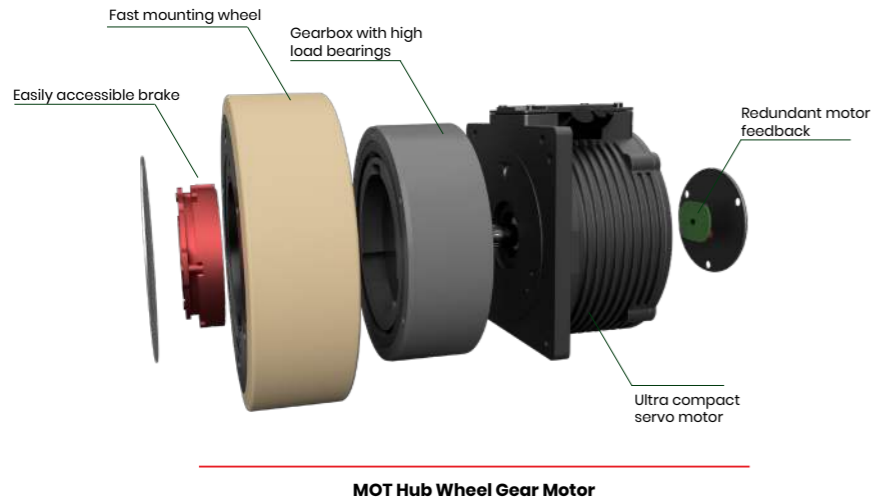
Optimized low-voltage architecture boosts system performance and reliability.



# AGV/AMR Drive Systems.

## Simply Smarter.

The **MOT-HM Wheel Hub Gear Motor** and the **ZED-65 Servo Drive** is a cutting-edge driving solution engineered for mobile robotics, delivering high efficiency in a compact design. With an ultra-short motor and an integrated gearbox, this system optimizes space while maintaining exceptional performance. Its innovative bearing design enhances durability and enables higher loads and speeds, making it an ideal choice for AGVs, AMRs, and other mobile platforms requiring performance and reliability.



Safety over  
**EtherCAT** **EtherCAT** **CANopen**

- 1 Compact.**  
 Integrated design simplifies cabling and leaves more space for other components.
- 2 Robust Design.**  
 Strong output bearings and a shock and vibration proof servo system.
- 3 Safe Operation.**  
 STO function and connectivity to PLC or modular safety controller.
- 4 Smooth Running.**  
 Accurate speed and position control at extremely low/high speed levels.
- 5 Low Energy Consumption.**  
 Low energy consumption minimizes the recharging cycle and increases the mobility range.

## Customized motion from head to wheel

Our products and solutions are used in a wide range of applications, accommodating the increasing demand for multiple axes and application flexibility in mobile robots. In addition to the traction axes, STXI's drives and motors are used for lifting mechanisms and other auxiliary motion axes, such as rotating units and telescopic manipulators.

### Driving Axis



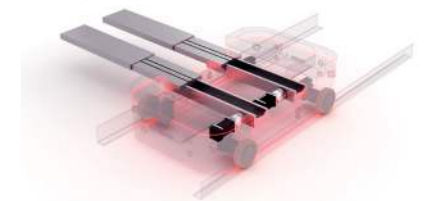
Integrated servo motors with safety

### Lift Axis

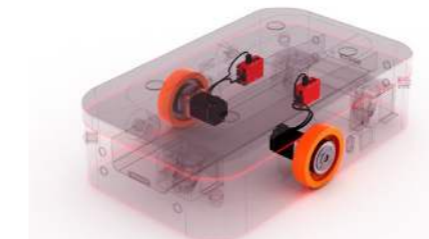


Centralized elevation with an integrated actuator

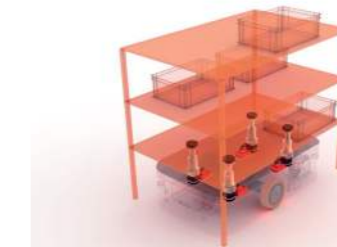
### Retrieval Mechanism



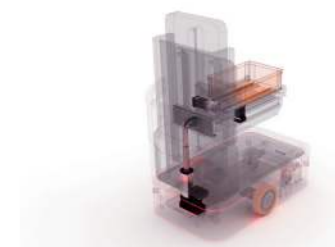
Telescopic manipulators in shuttle systems



Compact drives and gearmotors



Lifting mechanism with drives and motors



Fork, tilt and lift axes

### MOT-HM: The New Wheel Hub Gear Motor

- Higher Speeds & Efficiency**  
 Optimized bearings enhance traction, enabling faster, smoother robot operation.
- Compact Design**  
 Integrated gearbox reduces system length, maximizing efficiency in confined spaces.
- Easy Maintenance**  
 Quick-access brake design allows for rapid replacements, minimizing downtime.
- Seamless Integration**  
 Compatible with ZED 65 servo drive for precise motion control and improved performance.
- Reliable & Durable**  
 Designed for long service life and high energy efficiency, ensuring consistent performance in demanding environments.

# Engineering. Made better.

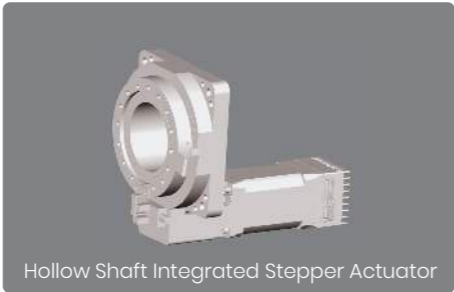
With unmatched industry know-how and over 35 years of experience using the most innovative technologies, STXI offers smart, flexible, and cost-effective motion solutions, precisely designed for peak performance, seamless integration and optimal efficiency.

## Smart Actuation

An end-to-end solution, providing a complete integrated axis. Combining integrated motors, a gearbox or actuator, and a brake- with one part number and one ownership, creating a fully-functional smart actuation solution.



Linear Integrated Stepper Actuator



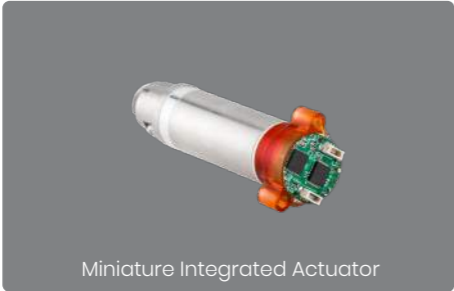
Hollow Shaft Integrated Stepper Actuator



Integrated Servo Rotary Actuator



Gear Motor with Two Encoders



Miniature Integrated Actuator



Integrated Drive-Motor-Gear-Ball Screw

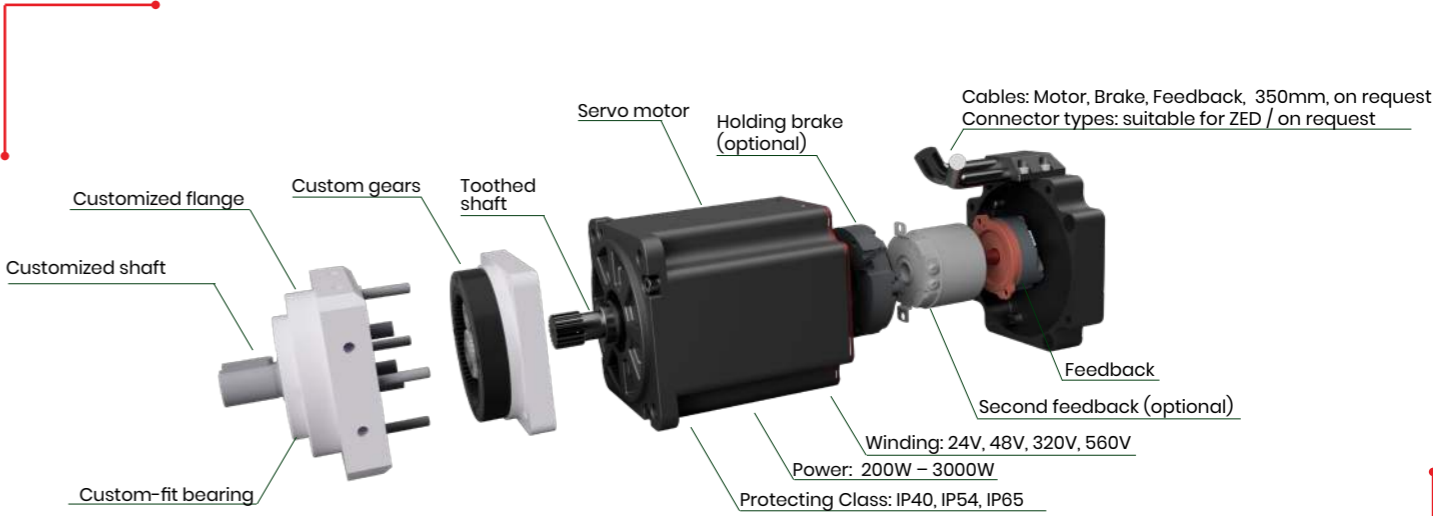
## Custom Electronics

Combining extensive knowhow and field-proven software and hardware building blocks, we provide fast and accurate development of the ideal solution for your motion challenges. From minor modifications to full customization, we integrate any peripheral functionalities required to simplify and optimize your design.

# Tailored Motion. Endless Possibilities.

## Custom Gearmotor Solutions

Fast, flexible configurations with custom gears, brakes, and encoders, combining a wide range of motor and gearbox options to match specific performance requirements. With seamless integration, engineers can optimize torque, speed, and efficiency for the most demanding motion challenges.



## Custom Motor Options & Gear Configurations

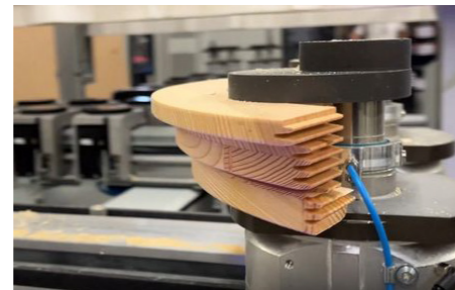
# Motion Solutions Across the Automation Industry



**Medical**  
Scanners, patient beds, hand tools

**Semi & EA**  
Pick & Place, AOI

**Intralogistics**  
AGV, AMR, Shuttles, AS/RS systems



**Print**  
Digital, Offset, 3D Printing

**Textile**  
Wrap knitting, Tufting

**Woodworking**  
Edgebanding, CNC

# Your ideal motion partner.

- 1**  
**Your Partner from Day 1**  
Supporting our customers in converting their motion needs to optimized product specifications.
- 2**  
**Market-Driven Solutions**  
Product development based on market forecasts, creating segment-optimized solutions.
- 3**  
**Industry Know-How**  
Unmatched industry know-how to simplify and optimize your design.
- 4**  
**Extensive Global Network**  
A deep-rooted global network of partners puts us at the forefront of the global industry.
- 5**  
**Sourcing Capabilities**  
Strategic partnerships with key component providers to ensure alternating resources when needed.
- 6**  
**Fast Time to Market**  
Fast modification and adaptation to our customers' needs based on field-proven software and hardware building blocks.
- 7**  
**Built to Scale**  
Flexible and localized production lines allow our customers to scale with ease.
- 8**  
**Product Lifetime Support**  
Guaranteed lifetime support and production of your product, making sure your machine can be manufactured for decades to come.

Trusted motion partner of:



# ***STXi***Motion

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