

HIWIN®

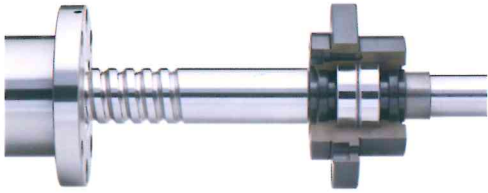
PRODUCT DIRECTORY

INDUSTRIE 4.0 Best Partner

HIWIN Ballscrew Total Solution

Complete motion and control products with one stop sourcing for customers.

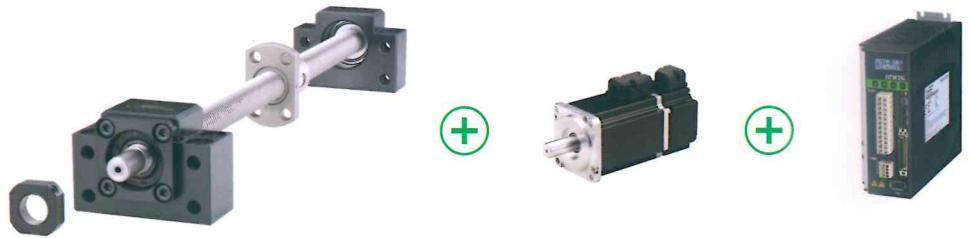
- Solution 1 : Ballscrew+Support Unit



- Solution 2 : Ballscrew+BSB



- Solution 3 : Ballscrew+Bearing/Lock Nut+Coupling+Motor+Drive



HIWIN Single-Axis Robot Total Solution

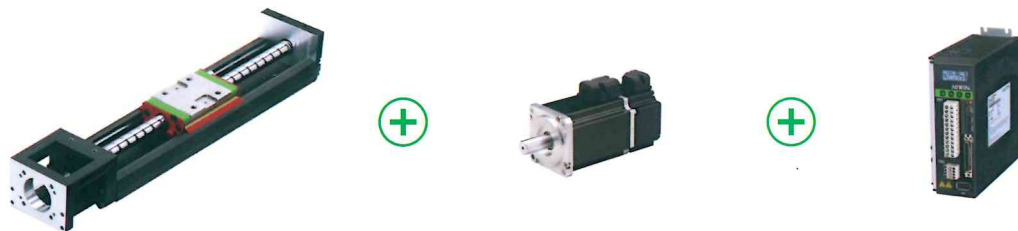
One-stop total solution for customers – including single-axis robot, motors and drives. HIWIN products have the characteristic of high speed response, high acceleration response, vibration suppression and high-speed network communications interface.

- Solution 1 : HIWIN Single-Axis Robot

Customer can choose from a diverse range of fully integrated linear stages – HIWIN single-axis robot. Can be configured with other motors, an automated mechanisms.

- Solution 2 : HIWIN Single-Axis Robot+HIWIN Servo Motor and Drive

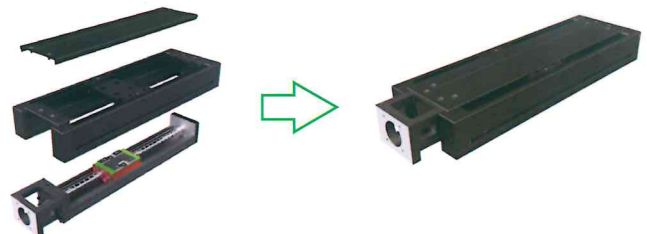
Customer can choose the HIWIN single-axis robot together with HIWIN servo motor and drive. Integration of both mechanical and electronic parts to reduce assembly time of customer.



With various parts and options to choose, HIWIN offers complete integrated solutions

- Solution 3 : KK/SK Single-Axis Robot- Dustproof Module

High precision ballscrew drive with optimal u-shaped rail as a guide mechanism to provide high precision and high rigidity. Special dustproof design avoids dusts into the inside of the module, fully covered plug-in module for fast installation. For standard KK/SK modules; the front and rear covers can be quick disassembly and cleaning the dust easily.



Super S Series

- Low noise (5~7 dB lower than external recirculation series)
- Space-saving and lightweight design
- Dm-N value up to 220,000
- High acceleration and deceleration



● Super Z Series

- High-speed motion
- High acceleration and deceleration
- Low vibration and smooth operation
- Space saving and lightweight design: Nut diameter reduced by 15%~30% compare with standard type



Heavy Load Ballscrews RD series

- The load capacity is up to 2~3 times
- Accuracy grade : JIS Grade C7
- Longer product life-cycle
- Dm-N value is up to 160,000



Dust-Proof Ballscrews

- SS (Scrape wiper)
- SH (Felt + Scrape Wiper)
- EW (High dust-proof Wiper),
- NW (Seal type Wiper)



● Auxiliary Lubrication Module EL

- Extend the maintenance cycle
- Optimal lubrication
- Good Compatibility



● R-Type EPS Rack Ballscrews

"Ballscrews" are key components of rack-assisted electric power steering system (R-EPS). HIWIN Technologies Corp. is a professional ballscrew manufacturer with modern facilities and professional engineers. High-quality, high smoothness and long lifecycle R-EPS ballscrews provided by HIWIN can meet customers' requirements and strengthen competence of their products.

Super T Series

- Low noise (3~5 dB lower than external recirculation series)
- Good sound quality: Eliminates friction sound to provide better sound quality
- Low vibration and smooth operation



Rotating Nut Ballscrews R1/R2 Series

- Nut and support bearing are integrated unit
- Compact and high positioning accuracy
- Simple installation
- Rapid feed, Higher stiffness, Low noise



Cool Type I - Extra High Dm-N Value Ballscrews

- Prevents thermal distortion, strengthen durability
- Extends lubrication life cycle
- Keeps temperature constant and reduces warm-up time



E2 Self-Lubricant

- Easy and longer maintenance cycle, economical
- Interchangeable oil selection
- Applications for special environments: dusty or wet environments



Ball Spline

- Torque transmitting ability
- Nut and support bearing are integrated unit
- Optimizing the lubricate path, improve the lubrication ability
- Simple installation



Precision Bearing

Linear Bearings

- Linear bearings between $\varnothing 6\text{mm}$ ~ $\varnothing 50\text{mm}$ under both EU and Japanese regulations
- Standard type, adjustable type, open type, extended type, flange type linear bearing
- Smooth operation with low noise



Crossed Roller Bearings

- Able to withstand both axial and radial load
- High Loading Capacity and High Rigidity
- Customized design to meet customer's specific requirements



Ballscrew Bearings

- Great axial rigidity.
- Provide flexible assembly tolerances, to meet specific requirements of customers
- Can be supplied with HIWIN ballscrews for a total solution



Support Units

- Anti-rust surface treatment.
- With high precision, high rigidity rangular contact ball bearing
- Compact size for easy installation
- Can be assembled with HIWIN Ballscrews for a total solution



Linear Guideway

● New Product



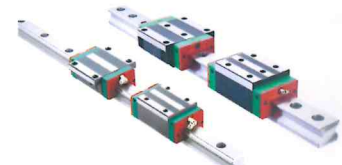
● AG (Chiastic Structure) Series

Non-sliding platform structure, High torsional rigidity, High precision manufacturing



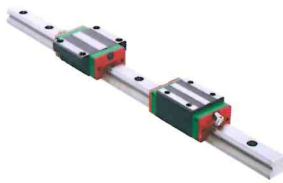
● CG (Anti-Moment) Series

High rigidity, high accuracy, high load capacity in all four directions, high anti-moment structure, compatible combined with high dust-proof accessories is suitable for woodworking machine.



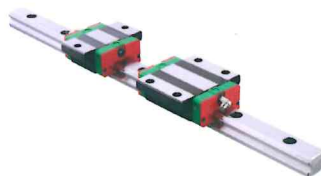
QH/QE/QW/QR (Quiet Linear Guideway with SynchMotion™ Technology)

Equipped with patented SynchMotion™ which offers low noise, smooth movement, superior lubrication and longer product life time.



HG Series (Heavy Load Ball Type Linear Guideway)

High rigidity, high accuracy, high load capacity and self-aligning capability.



EG Series (Low Profile Ball Type Linear Guideway)

High load capacity in all four directions, low-profile assembly and shorter block length is suitable for high speed industrial machine and small equipment.



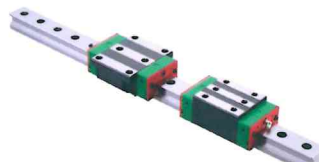
MG Series (Miniature Linear Guideway)

- Compact size, light-weight, suitable for miniature equipment application.
- Gothic four-point contact design, strong rigidity for all direct and high precision.
- Steel balls are held by a retainer, interchangeable under accuracy permit.



WE Series (Four-Row Wide Rail Linear Guideway)

Wider rail width and low-profile design offer high torque and resistance.



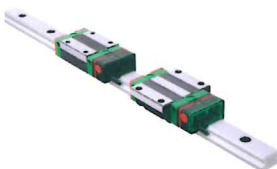
RG Series (High Rigidity Roller Type Linear Guideway)

Features roller as line contact element, during heavy load lead subtle elastic deformation, achieving longer service life.



PG Series (Positioning Guideway)

- Integrating the linear guideway with a magnetic encoder
- The linear guideway provides high stiffness while the magnetic encoder provides high precision.
- The sensor and magnetic strip are embedded to prevent possible damage caused from external factors.
- Non-contact measuring sensor: ensures a long lifetime.
- Long distance measurement (magnetic strip up to 30m)
- Insusceptible to harsh environmental factors such as water, oil, dust, vibration and heat.



E2 Series (Self-Lubricant Linear Guideway)

Self-lubrication provides easy maintenance and proper lubrication for longer periods, thereby reducing oil usage in long run and saving cost.



SE Type (Metallic End Cap Linear Guideway)

Designed for high temperature resistance and vacuum environment, can resist up to 150°C.

Driven Tool Holder

● New Product

- Two series -VDI and BMT
- Spiral bevel gears and tool holder are both with grinding treatment
- High precision, highly rigid bearings
- High rigidity and precision - Can be used with a wide range of turrets and machine tools
- Can be integrated with other HIWIN products to provide a complete solution



Industrial Robot - Multi-Axis Robot

● New Product

Articulated Robot - RA/RT Series



- A compact and agile 6-axis jointed-arm robot for precise assembly, part transfer and workpiece loading/unloading.
- Applications include: pick-and-place, handling, assembly, deburring, grinding and polishing.

Delta Robot - RD Series



- A 4-axis parallel robot utilizing a parallel linkage mechanism to perform extremely high speed motions with stability and high accuracy.
- Applications include: pick-and-place, assembly, alignment and packaging.

Electric Gripper - X Series



- Full range of products are integrated with stepper motor and encoder, have the feature of statuses return signal, abnormal alarm, object identification and other signal output.
- Use the miniature both-hand linear modules, to achieve high-speed, high precision, high rigidity, high efficiency and with small size advantages.
- System inbuilt with the auto-tuning original reset and the gripping model establishment, which have real-time adaptive capture, model adjustment and other intelligent functions.
- Move direction, travel, force, speed, etc. can be set, and the software has the function of recording operating history.

SCARA Robot - RS Series



- SCARA provides an excellent solution for rapid motion in the horizontal plane for pick and place and assembly.
- Applications include: Widely used in the plastic, automobile, electronic, pharmaceutical and food industries.

Wafer Robot - RW Series



- The advantage is the vertical integration of both hardware and software. Using high precision and stiffness DD motor, the repeatability can reach $\pm 0.02\text{mm}$. Small circling radial and high utilization of space.
- Applications include: Pick -and -place equipment in Semiconductor industry (pick-and place of wafer), Optoelectronics (mini panel, mini solar panel) and LED industry (sapphire substrate, rubber ring).

● Integrated Electric Gripper - S Series

- Integrated control system: The controller is embedded inside the gripper and the system has built-in motion parameters.
- User friendly: Users can only control I / O signals, without having to edit programs and parameters.



Electric Rotary Joint-ERJ Series

- Designed and developed to prevent the wires from twisting during continuous rotational motion, thus eliminating the chances of wire interference and wear.
- The end of robot arm can be opened for infinite rotational motion.
- Significantly speed up the assembly, grinding, polishing, deburring.



Medical Equipment (ISO13485)



Robotic Gait Training System

- Upright walking robot in full weight-bearing position.
- With patented three-point support module, quick set-up and multiple safety design, it combines standing and walking training in the early stage and enhance efficiency.



Robotic Endoscope Holder

- The robotic holder is used in minimal invasive surgery to ensure stable scope views and help in improving surgery quality and efficiency.
- The simulated human arm design offers maximal working ranges and fits in various surgery positions.
- Patented Remote Center of Motion design ensures minimal incision and patient safety.



Hygiene System

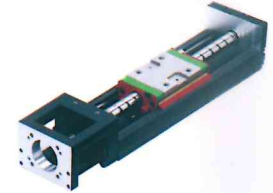
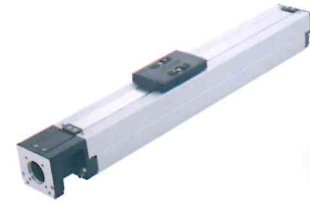
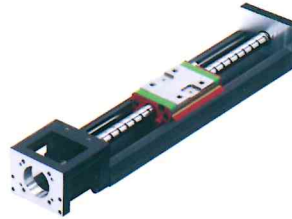
- With electrical-lifting bathtub and lifter, it provides bedridden patients and caregivers an easy and safe bathing environment.
- The six SPA massage function facilitates blood circulation and pain relief for patients.

Industrial Robot - Single-Axis Robot

● New Product

● KC Series

Lightweight module, with high precision ball screw as the transmission mechanism, and coordinated with lightweight U-shaped rail as a guide mechanism to provide high precision, high efficiency, small size, fast installation and other features.



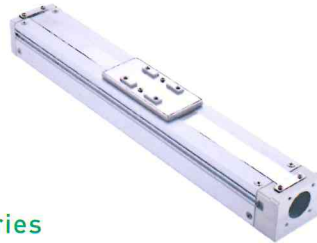
KA Series

Lightweight aluminum base design is suitable for semiconductor and automation industry.



KK Series

Integration of ballscrew and linear guide way together through modular design, which can provide high precision, fast installation, selection, high rigidity, small size, space-saving features. With high-precision ballscrew as a transmission mechanism and the optimal design of the U-shaped rail as a guide mechanism to ensure the accuracy and stiffness.



SK Series

With SynchMotion™ technology in the re-circulation system, it reduces the noise; improve smooth movement, low particle emission and other characteristics.



KS Series

For clean room equipment, KS has special shockproof design which is best suited for use in semiconductor process equipment, light-emitting diode detectors, medical equipment and other products.

KE Series

Simple structure with easy installation and maintenance, it features dust-proof design, high reproducibility, high efficiency and high reliability which is suitable for high-precision industry, semiconductor industry, medical automation industry, FPD panel handling and detection or test environment.

KU Series

High-precision lightweight aluminum extrusion base with dust-proof design provides high precision, high efficiency, high reliability, with easy installation, maintenance and other characteristics suitable for high precision Industry, semiconductor industry, medical automation industry, FPD panel handling and testing or test environment.

Direct Drive Rotary Table

● New Product

Using high acceleration, high torque, high precision and zero backlash Torque motor with built-in pneumatic braking system.

● RAB Series

- Symmetric structure to minimize thermal deformation.
- High acceleration, positioning requires only 0.5 seconds from 0 to 360 degree
- Rotational speed up to 100rpm; torque up to 2000Nm



● RCH Series

- Suitable for multi-tasking machining center
- High acceleration, positioning requires only 0.5 seconds from 0 to 360 degree
- Rotational speed up to 2000rpm; Torque up to 53Nm



● RAS Series

- Single-arm structure, small size to save machine space
- High acceleration, positioning requires only 0.5 seconds from 0 to 360 degree
- Maximum rotational speed up to 170rpm; torque up to 600Nm



● RCV Series

- Suitable for all kinds of drilling machines / special purpose machines / grinding machines / sharpening machines
- Protection class up to IP65
- High acceleration, positioning requires only 0.5 seconds from 0 to 360 degree
- Rotational speed up to 200 rpm; Torque up to 205 Nm



AC Servo Motor & Drive

Features:

- High reliability
- High efficiency
- High speed, High torque
- Low heat

AC Servo Motor Type:

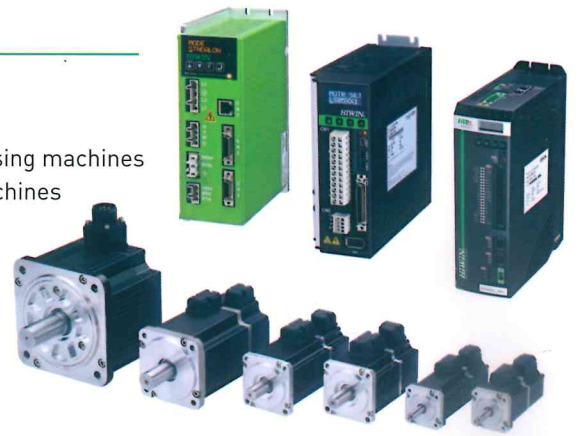
50W, 100W, 200W, 400W,
750W, 1KW, 2KW

Applications:

- Automation industry
- Processing machines
- Turning machines, winding machines

Drive Type:

D1, D1-N, D2T



Linear Motor

Ironcore Motors

- High thrust
- High acceleration and deceleration
- Point-to-point motion applications

Ironless Motors

- No cogging force
- Lower velocity ripple
- Scan motion applications

Shaft Motors

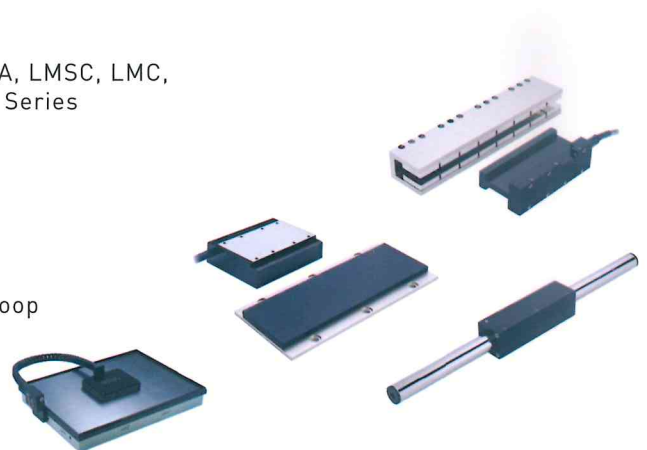
- Circle stator
- No cogging force
- Smooth motion profile application

Planar Motors

- Air bearing for wear-free operation
- Integrated position sensor, closed-loop control
- No temperature rise issue, can be installed upside down

Products

LMSA, LMFA, LMSC, LMC,
LMT, LMSP Series



Torque Motor (Direct Drive Motor)

Torque Motor Rotary Tables: TM Series

Features:

- No backlash drive
- Hollow shaft
- No gear wear
- No maintenance, small size
- High torque
- Excellent dynamic characteristics
- Brushless drive
- Incremental optical scale / absolute resolver

Applications:

- Production equipment
- Assembly line
- Machine tools
- Industrial Robot
- QC testing equipment



Torque Motor: TMRW, TMRI

Features:

- Water cooled
- High torque
- Only require calibration before shipments, easy to install
- Large hollow shaft

Applications:

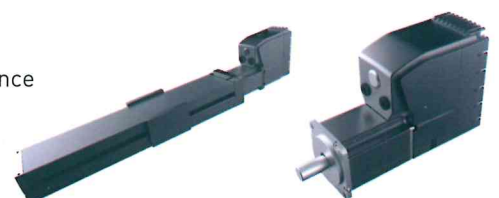
- CNC indexing turntable
- Machine tool industry



abilysrobot & abilymotor

Features:

- Highly Integrated design : Enhanced system integration efficiency
- Easy to operate. Easy to set up and operate through human-machine interface
- Improve machine performance
- High reliability



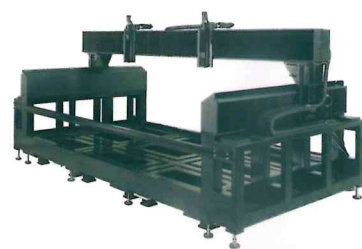
Stage

Features:

- Customized design
- Deviation in synchronization movement < 5 μ m
- Complete system can have up to 18 axes
- Best positioning feedback system resolution 50nm
- Max. Velocity 5 m/s • Max. Acceleration 3.5G

Applications:

- Automation pick and place
- Solar energy equipment
- FPD/PCB/AOI equipment
- Water jet • Machine tool
- Laser scanning and cutting equipment



Positioning Measurement System



Enclosed Positioning Measurement System

- Magnetic sensing mechanism
- Accuracy: 10 μ m (with length 1m)
- Resolution: 1 μ m
- With single reference signal
- Easy installation
- Superior environmental compatibility
- IP65

Positioning Measurement System

- Easy installation
- Compact size
- Non-contact measurement system, provides longer service life
- Resistant to water, oil, dust, and other harsh environmental factors.
- Scale length up to 30m
- 1 μ m resolution with speeds of up to 10m/sec
- Repeatability within $\pm 2\mu$ m

Linear Actuator

LAN3A

- Max. thrust/pull: 5000N~12000N
- Max. speed: 5~18 mm/sec
- Standard stroke: 100~500 mm
- Protection: IP54/IP66
- Screw type: ACME



LAC1

- Max. thrust/pull: 500N~2000N
- Max. speed: 8~16 mm/sec
- Standard stroke: 300~500 mm
- Protection: IP54
- Screw type: ACME

LAK2J

- Portable design (operated by battery)
- Emergency stop button
- Front panel access for emergency operation
- Over load protection
- LED for power indication
- Protection: IP54/IP66



Other Available Types :

LAM, LAS, LAN series

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