## Industrial Robot



High Speed

Subsidiaries \& R\&D Centers

## HIWIN KOREA

 www.hiwin.krHIWIN USA www.hiwin.com

HIWIN Srl www.hiwin.it

HIWIN s.r.o. www.hiwin.cz

## HIWIN SINGAPORE

 www.hiwin.sgMega-Fabs Motion Systems www.mega-fabs.com

# Articulated Robot 

## RA605

## Specification

| Degrees of freedom |  | 6 |
| :---: | :---: | :---: |
| Nominal load capacity |  | 5 kg |
|  | Maximum reach radius | 710mm (Point P) |
|  | J1 | $\pm 165^{\circ}$ |
|  | J2 | +85 ${ }^{\circ}-125^{\circ}$ |
|  | J3 | +185 ${ }^{\circ} \sim 55^{\circ}$ |
|  | J4 | $\pm 190^{\circ}$ |
|  | J5 | $\pm 115^{\circ}$ |
|  | J6 | $\pm 360^{\circ}$ |
| Position repeatability |  | $\pm 0.02 \mathrm{~mm}$ |
| Cycle time* |  | 0.5s |
| Weight |  | 40kg |
| Controller |  | RCA605 |
| Installation |  | floor, ceiling and wall-mounted |

## Features

- 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.
* Cycle time is based on a reciprocating movement over a vertical distance of 25 mm and a horizontal distance of 300 mm . Actual cycle time will depend on operating conditions.


## External Dimensions / Motion Range

## Intersection





Top View


## Delta Robot

## RD401

## Specification

| Degrees of freedom |  | 4 |
| :---: | :---: | :---: |
| Nominal load capacity |  | 1 kg |
|  | Horizontal stroke | 420 mm |
|  | Vertical stroke | 150 mm |
| Position repeatability |  | $\pm 0.05 \mathrm{~mm}$ |
| Cycle time* |  | 0.3s |
| Weight |  | 80kg |
| Controller |  | RCD401 |
| Installation |  | ceiling mount |

* Cycle time is based on a reciprocating movement over a vertical distance of 25 mm and a horizontal distance of 300 mm . Actual cycle time will depend on operating conditions.



## Features

- 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.


## External Dimensions / Motion Range



## Delta Robot

## RD403

## Specification

| Degrees of freedom |  | 4 |
| :---: | :---: | :---: |
| Nominal load capacity |  | 3 kg |
|  | Horizontal stroke | 1300 mm |
|  | Vertical stroke | 500 mm |
| Position repeatability |  | $\pm 0.1 \mathrm{~mm}$ |
| Cycle time* |  | 0.3s |
| Weight |  | 165 kg |
| Controller |  | RCD403 |
| Installation |  | ceiling mount |

* Cycle time is based on a reciprocating movement over a vertical distance of 25 mm and a horizontal distance of 300 mm . Actual cycle time will depend on operating conditions.



## Features

- 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.


## External Dimensions / Motion Range



View A


> View B


# Movable Parallel Robot 

## RK401

## Specification

| Degrees of freedom |  | 4 |
| :---: | :---: | :---: |
| Nominal load capacity |  | 1 kg |
|  | Horizontal stroke | 560 mm |
|  | Vertical stroke | 670 mm |
| Position repeatability |  | $\pm 0.05 \mathrm{~mm}$ |
| Cycle time* |  | 0.3 s |
| Weight |  | $\begin{aligned} & 50 \mathrm{~kg} \\ & \text { (without controller) } \end{aligned}$ |
| Controller |  | RCK401 |
| Installation |  | floor, ceiling |



* Cycle time is based on a reciprocating movement overa vertical distance of 25 mm and a horizontal distance of 300 mm . Actual cycle time will depend on operating conditions.


## Features

- 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.


## External Dimensions / Motion Range



## SCARA

## RS406

## Specification

| Robot Type |  | RS406-600 |
| :---: | :---: | :---: |
| Degree of Freedom |  | 4 |
| Payload M | kg | 2 |
|  |  | 6 |
| Reach | mm | 600 |
| Joint Range | deg | $\pm 130$ |
|  | deg | $\pm 150$ |
|  | mm | 200 |
|  | deg | $\pm 360$ |
| Standard Cycle Time* | sec | 0.39 |
| Repeatability | mm | $\pm 0.02$ |
|  | mm | $\pm 0.01$ |
|  | deg | $\pm 0.01$ |
| Z-Axis Shaft Diameter | mm | 20 |
| J3(Z-Axis)Push Force | N | 100 |
| Allowable Initial Moment | $\mathrm{kg}-\mathrm{m}^{2}$ | 0.01 |
|  |  | 0.12 |
| 1/0 Channels |  | 7 output point / <br> 8 input point |
| User Tubing |  | $\emptyset 4 \times 2, \varnothing 6 \times 2$ |
| Weight | kg | 17(Not Included controller) |



## Features

- SCARA[Selective Compliance Assembly RobotArm]
- SCARA provides an excellent solution for rapid motion in the horizontal plane for pick and place and assembly applications. Widely used in the plastic, automobile, electronic pharmaceutical
 and food industries.
- Mounting Position : Floor or Wall
* Cycle time is based on a reciprocating movement over a vertical distance of 25 mm and a horizontal distance of 300 mm . Actual cycle time will depend on operating conditions.



## Wafer Robot

## Specification

| Z-Axis | Stroke | 500 mm |
| :---: | :---: | :---: |
|  | Velocity | $250 \mathrm{~mm} / \mathrm{s}$ |
| T-Axis | Turning Range | $0^{\circ} \sim 340^{\circ}$ |
|  | Angular Velocity | 360 /s |
| R-Axis | Stroke | 420 mm |
|  | Velocity | $900 \mathrm{~mm} / \mathrm{s}$ |
|  | Weight | Approx. 48 kg |
| Cleanliness |  | ISO Class 2 (ISO 14644) |
| MTBF |  | 60,000hrs |
| Top Mount Plate |  | $290 \times 290 \mathrm{~mm}^{2}$ |
| Operating Tempature |  | $10 \sim 40^{\circ} \mathrm{C}$ |
| Repeatability |  | $\pm 0.02 \mathrm{~mm}$ |
| Payload Capacity |  | 0.5 Kgf |
| Control interfaces |  | RS-232,1/0 |
| Vacuum Require |  | -40kPa ~ -55 kPa , Ø6 |
| Power Supply |  | Single-Phase AC110V/AC220V |



## Features

- Product Description: According to customer needs to provide the robot with the key components of the customized. (Eg, linear guideways, ball screw, Toque motor, AC servo motor, controller ... etc.)
- Applications include: Automatic wafer transfer and positioning.


## External Dimensions / Motion Range



## Electric Gripper



## Features

- Uses the closed-loop control of a stepper motor combined with an encoder.
- The gripping transmission is a single axis robot that utilizes a ballscrew.
- Adjustable gripping force, position, velocity and acceleration.
- The gripper's compact size offers high speed, accuracy, stiffness and efficiency.


## Specification

| Model | Stroke/ <br> both sides <br> $(\mathrm{mm})$ | Gripper <br> Force <br> $(\mathrm{N})$ | Repeatability <br> $(\mathrm{mm})$ | Opening/ <br> closing speed <br> $(\mathrm{mm} / \mathrm{s})$ | Weight <br> $(\mathrm{kg})$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| XEG-16 | 16 | $5 \sim 50$ | $\pm 0.01$ | $1 \sim 60$ | 0.34 |
| XEG-32 | 32 | $15 \sim 150$ | $\pm 0.01$ | $1 \sim 80$ | 0.63 |
| XEG-64 | 64 | $90 \sim 450$ | $\pm 0.01$ | $1 \sim 100$ | 1.85 |

Controller
Model

## Power Supply (v)

Total Current (A)
Weight (kg)

| XEG-C1 DC24V $10 \%$ | 3A MAX | 0.14 |
| :---: | :---: | :---: | :---: |

