

Cartesian robot solutions

Automation for XYZ-R movements

Each year, more & more consumer goods are produced and deployment of an XYZ-R Cartesian robot can cope with this increased demand on logistics. Built for medium weight loads needing repetitive stacking, a Cartesian robot improves productivity by freeing-up manpower and reducing the damage caused by improper stacking. Moreover, Cartesian robots save valuable floor space because they operate 'over' the workspace, unlike articulated robots that need their own footprint.



- 1 Less downtime Thanks to fewer wires
- 2 Fast machine development Using dedicated function blocks
- 3 More flexibility Free choice of servomotor
- 4 High performance Thanks to linear motors





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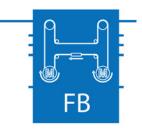
1. Reduced installation time and less downtime

Our integrated servo motors merge both drive and servo motor, making the motor/ encoder cables obsolete. Cartesian robots have traveling motors and with less wiring there's less wear and fewer things to go wrong. Other benefits include reduction in both installation time and cable and electrical cabinet costs. In addition, the integrated servo motor comes with local I/O for easy wiring of distributed signals and also has a built-in EtherCAT port that offers full integration within the Sysmac automation platform.



2. Fast development

One of the mechanical configurations for a Cartesian robot is to fix the X & Y motors to the frame. This H-bot set-up saves on wiring, installation and maintenance costs, but is slightly more complex to control. Omron has dedicated function blocks for H-Bot / T-bot to minimise development and testing time.



3. More flexibility

When your application requires a specific servo motor, normally the matching servo drive is used. Our G5-LM servo drives give you the option to freely program the motor parameters, enabling you to select the best fit servo motor. Moreover, you can still use all the benefits which the Omron Sysmac platform offers for the total application.



4. High performance and precision

Both the speed and accuracy of moving materials or tools are optimised using linear motors because the motor and frame become one. This gives you the added advantage of easier construction. Also, with less weight to move you benefit further from lower running costs. Even in high precision applications, such as laser cutting, the lighter, more rigid mechanical construction of our approach gives you faster, more accurate control.



Suitable applications:

Packaging, material handling and machine tools

Pick & place, agro food and case packer

Handling, assembly and stackers

Laser and water cutting, XY-stage, engraving

