

Automating precision tasks

A new low-cost modular robotics kit from motion plastics manufacturer, igus, makes automation extremely easy and affordable for manufacturing companies in South Africa.

Cost-effective automation is the best possible solution for gripping, turning, pivoting and placing items and returning them to their initial position – especially in the case of simple pick-and-place tasks performed over a long period of time. Lubrication- and maintenance-free robolink components can be arranged for a multitude of tasks and are a cost-effective way of ensuring more efficient processes.

igus South Africa's managing director, Ian Hewat, says this also applies to small and medium-sized enterprises that are becoming increasingly exposed to external competitive pressure.

"Our robolink modular robot joint kits give manufacturers entry into the world of automation – easily and cost-effectively.

Highly configurable

"Our robolink range of products offers low-cost components made of lubrication-free and maintenance-free plastics. With the modular kit principle of robolink, the user can create a simple automation solution in a very short time. In addition, the user can put together systems individually – either with single components such as gear-boxes that can then be combined, or with completely pre-assembled articulated arms, whose lightweight construction and size make them especially flexible.

"With the possibility of modular combination, the customer receives a system that can be used for a wide variety of robotics tasks. The advantage of robolink is that repetitive and time-consuming tasks that are mostly performed by hand can be automated very easily. And all this can be done simply at a fraction of the cost of a classical industrial robot. In this way, better and more efficient use of resources can be made," says Ian.

He explains that the robolink modular kit enables the user to individually assemble a system consisting of joints with different gearboxes, motors and connecting elements. The robolink D joints are the moving connecting pieces that are located between the robot arm's individual connecting plates and are operated with a direct drive and a stepper motor.

Made to last

Different joint sizes with worm gears or strain wave gears are available for the user to choose from. In the case of worm gears and strain wave gearing, the motor is located directly on the axis and, depending on the application, can be installed as a waterproof motor – for example, where water is regularly sprayed. The joints can be operated with motors of other manufacturers, in addition to



igus South Africa's Managing Director, Ian Hewat.


those obtainable from igus.

As all robolink components are also available as individual joints, they can be combined with each other or special components, as well as with highly durable drylin E kits for gantry robots. For example, a multi-axis articulated arm can move on a lubrication-free drylin E linear axis. The robolink D connecting elements link the robot arm's individual joints to each other. They include the base with which the robot can be mounted on a surface and the connecting elements for joints.


The robolink joint systems are available as ready-made robot arms with two to five axes. Due to the modularity of the kit, however, they can be extended and adapted as often as required as all components are also available as individual units. This provides maximum flexibility in the automation process at all times or makes it possible to construct an articulated joint system according to individual needs.

The Flexible addition of control units, grippers, suction and other automation components is also available.

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