

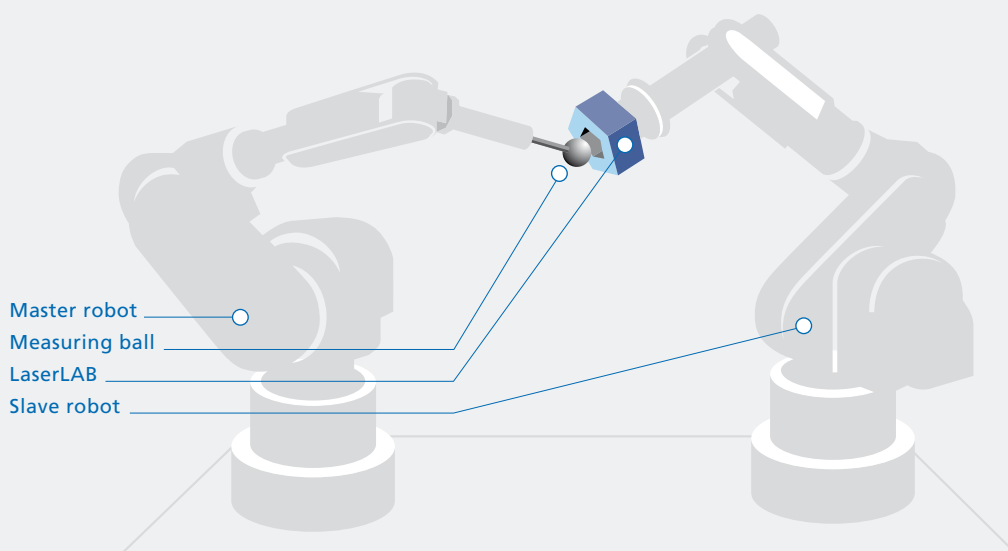
Measurement of Cooperating Industrial Robots with kir:in

Will your component be rotated and turned with additional axes during processing? Or are you already using cooperating industrial robots? Then, LaserLAB with kir:in will help you!

The goal of measuring additional axes in robot plants is improving the accuracy of the whole processing procedure. This is especially important, if e.g. workpieces will be processed in motion. The advantage of this new technology is high efficiency, as intermediate transportation steps can be completely dropped. From a simple rotary table to the cooperating robot: With LaserLAB and kir:in, you can exactly measure this production mode of the future!

Your Advantage

- :: Clear improvement of the accuracy
- :: Measurement of rotary and tilting tables
- :: Measurement of cooperating robots
- :: Standardised measurement
- :: Non-contact measurement
- :: Quick initial operation of plants
- :: Large time savings



How it is done

By using LaserLAB and kir:in for measuring directly inside the robot cell, you will get a common coordinate system, inside which the kinematics are moving. The additional axes will be measured with the aid of the measuring system. For this, simply attach the LaserLAB to the additional axes and the measuring ball to the robot. If you want to measure cooperating robots LaserLAB will be attached to the slave robot and the measuring ball to the master robot.

Compatibility

- :: Motoman



kir:in



SUCCESS BY COOPERATION – APPLICATIONS

Initial operation

Do you want to use cooperating robots? Do you want to prevent errors and collisions right from the beginning? Then measure with LaserLAB and kir:in already before the first initial operation: You will receive a common coordinate system of the kinematics – and this with very high accuracy.

Maintenance

Has there been a crash of cooperating robots in your processing cell? The additional axes must be measured again because the workpieces are no longer correctly transported, rotated or tilted? With LaserLAB and kir:in you are able to measure the common coordinate system of the kinematics quickly and exactly. In this way, your production programmes will operate smoothly again after a short period!

THE PROCEDURE IN DETAIL

LaserLAB and kir:in operate in a semi-automatic measuring procedure. For this, proceed as follows:

Move the measuring ball with the robot into the visibility area of LaserLAB and then operate the button "Control". The robot with the measuring ball will be automatically moved to the origin of the measuring system. Subsequently, a measurement will be triggered. The control is only able to operate, if the ball has already been measured. Now move the additional axis/axes with the attached LaserLAB. Again, move the measuring ball into the visibility area of the measuring system and press the button "Control". The robot with the measuring ball will again automatically be moved to the origin of the measuring system and a second measurement will be triggered.

Already after 4 measurements, you will receive a first calculation of the common coordinate system. In order to improve the accuracy, you may carry out further measurements. In this case, take into account that: The larger the distance is between the single measurements, the better the result will be. After the measurement you can transfer the common coordinate system into the robot control by pushing a button.

