EASY 3D CALIBRATION

Easy 3D Calibration: Get 3D measurements in millimeters at full production speed

Easy procedure to calibrate your Ranger

In industrial applications where you need to verify or measure the actual shape, position, width, height, or volume of objects it is essential that you have calibrated measurements from your 3D Camera. SICK is now providing tools with a complete frame-work to minimize your effort to get calibrated 3D measurements.

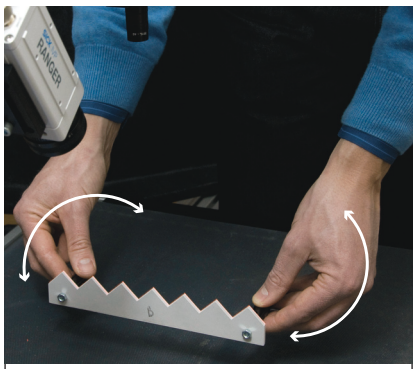
Calibration is a matter of translating what the camera sees in sensor coordinates (pixels) to world coordinates in e.g. millimetres or inches. This includes compensating for factors such as lens distortion, perspective view, and the triangulation angle between the camera and the laser. This may sound difficult, but with the new Coordinator tool from SICK, you can have your Ranger-system calibrated and providing 3D coordinates in millimeters to your application within minutes.

Calibration can be performed in numerous ways which often require a calibration target to be positioned very accurately at several known positions or that its movement is very well defined. This can be very expensive and difficult to achieve, especially in an industrial production environment. The calibration method from SICK does not require any of this but is instead done by holding the target by hand at several random positions in the measurement zone!

The Coordinator tool will guide you through the complete calibration procedure and provide immediate feedback about the achieved calibration accuracy. When completed, the result can be stored in the flash memory of the Ranger. By using the latest iCon API, you get calibrated 3D measurements at full speed into your vision application.

Ranger Calibration components

- The 3D Camera Coordinator: A software tool that assists you through the calibration.
- Calibration target: Make it yourself from provided CAD drawings or buy the accessory.
- iCon API 4.0: Use the latest version of iCon to get calibrated data directly in your application.



Benefits of Easy 3D Calibration

- Fast: Calibration completed in minutes
- Easy hand held calibration: No need for positioning equipment or controlled conveyor movement
- Uses 3D laser only: No need for additional light sources
- Flexible: Suitable for inspection widths from 150 to 1500mm
- Accurate: Calibration errors as low as 0.05% of FOV possible
- Userfriendly: Guide through all steps with immediate accuracy feedback
- Inexpensive: Software and CAD drawings are free for all Ranger customers!

» Read more about Easy 3D Calibration at www.sick.com/RangerCalibration

SICK
Sensor Intelligence.