

High-accuracy 3D robotics

With the new “Target Mark 3D” function of its VISOR® Robotic vision sensor, sensor manufacturer Sensopart facilitates the spatial awareness of handling and assembly robots – all in just a few clicks and with minimal programming in the robot control system.

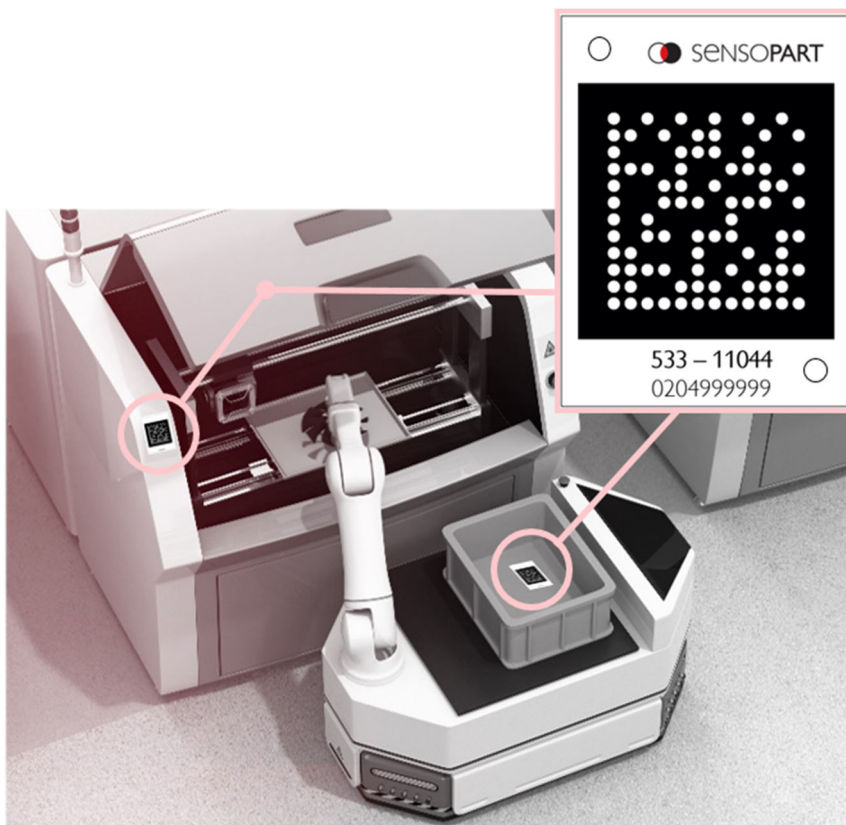


Figure 1: A mobile robot corrects its own position with the aid of a target mark on the workstation.

It is always good to know exactly where everything is on your workstation – this applies to both man and machine. However, people can still spot a screwdriver even if it should unexpectedly be located at the other end of the table. For robot solutions, on the other hand, this can prove somewhat problematic. Even slight offsets in operating position, for example due to an inaccurate feed of load carriers or the imprecise docking of mobile robots at the workstation, render the process unstable. While this previously required complex reprogramming, the situation can now be corrected with the aid of a target mark.

A target mark is simply attached to the workstation, and the “Target Mark 3D” detector is selected in the VISOR® Robotic configuration software.

The position of the target mark need only be referenced during the initial set up of the robot control system. After this, the vision sensor is able to extract 3D information from the picture and trigger a shift in the robot's position.

A further advantage of Target Mark 3D: Each target mark is unique; this means that several can be installed within one production environment to automate different processes. Any name can be assigned to each mark in the detector (e.g. Station 1).

The target marks are made of a robust, highly reflective material to guarantee correct detection even in poor lighting conditions. An added benefit of SensoPart's target mark system is that in contrast to the proprietary solutions of some robot manufacturers, it can be used across platforms with a possible retrofit. Above all, Target Mark 3D makes the temporary use of mobile robotic stations more flexible, extremely efficient and cost effective. The new function is now immediately available for all product versions of VISOR® Robotic as part of the latest software release 2.4.

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About SensoPart Industriesensorik GmbH

SensoPart develops, produces and sells a wide range of innovative sensors for factory automation. The main focus is on optoelectronic sensors and camera-based vision sensors, which are used in industrial applications - e.g. for object or color detection, distance measurement, code reading or in robotics. The company's products are developed and manufactured in Germany, at the plants in Gottenheim, near Freiburg-im-Breisgau, and Wieden in the southern part of the Black Forest. With four subsidiaries and a network of 40 international sales partners, SensoPart is present worldwide.

Founded in 1994, the family-run company is synonymous with flexibility and stands for innovative and high-performance products. SensoPart has received numerous distinctions for its work, for example 1st place in the Automation Award and is multi-time winner of the German Sensor Application Prize.

For further information about SensoPart, visit www.sensopart.com.