



## Innentitel und -story – Aufmacher für ein spezielles Thema!

### Aufmacherbeitrag:

» PCB & ASSEMBLY

#### Fluid dispensing robot systems

### Coming into sight: the role of vision in robotic fluid dispensing

Key to streamlining robotic fluid dispensing, vision-guided systems allow precise deposit placement, permitting robotic systems to deliver faster production cycles and remove the guesswork from the dispensing process, minimizing programming time and reducing overall operational costs.

» Konradin's Vision, Product Line Specialist Automation November 1999

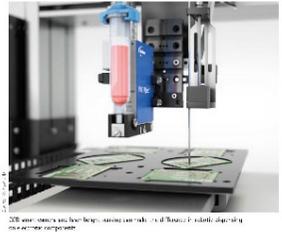
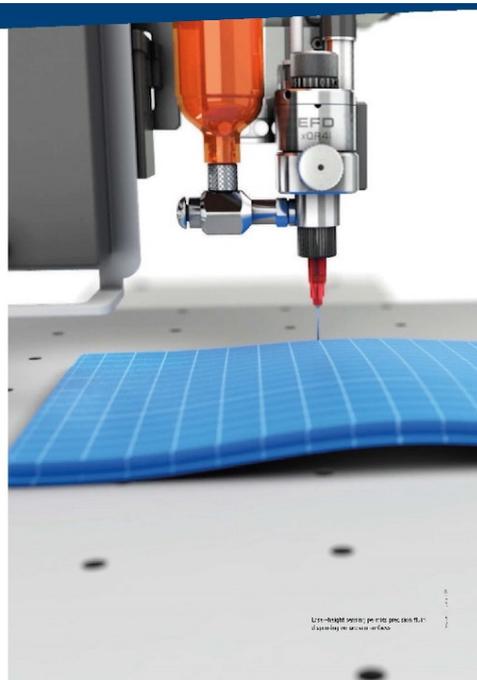
When creating robots that must be able to handle delicate or high-precision tasks, the most common solution is to use a robotic fluid dispenser. This is because fluid dispensing is a highly accurate process that can be automated to deliver consistent results. However, the accuracy of the dispenser must be maintained throughout its life cycle, and this is where vision-guided systems come in. Vision-guided systems allow the dispenser to see the workpiece and adjust its position accordingly, ensuring that the fluid is deposited exactly where it is needed.

#### Robotic fluid dispensing

Robotic fluid dispensing is a process that uses a robotic arm to dispense fluid onto a substrate. This process is used in a variety of applications, including the production of printed circuit boards (PCBs), the assembly of microelectronics, and the coating of parts. The process is highly accurate and repeatable, making it ideal for high-volume production.

#### Vision-guided dispensing

Robotic fluid dispensing is a highly accurate process, but it can be affected by a number of factors, including changes in the workpiece or the dispenser. Vision-guided systems can be used to detect these changes and adjust the dispenser accordingly, ensuring that the fluid is deposited exactly where it is needed.



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#### Point-to-point teach method

The most common method for teaching a robot is the point-to-point method. This involves moving the robot's end effector to the desired location and then recording the position. This process is repeated for each point on the path. The robot then moves from point to point, dispensing fluid at each location. This method is simple and easy to learn, but it can be time-consuming and requires a lot of programming.

#### Simple Vision and CCD-Equipped Vision

Simple vision systems use a camera to detect the location of the workpiece. The camera is mounted on the robot's end effector, and the robot moves until the workpiece is in the center of the camera's field of view. This method is simple and easy to learn, but it can be affected by changes in the workpiece's position or orientation.

#### Zusammenfassung

Die Vision- und CCD-geführten Systeme ermöglichen eine präzise Fluidabgabe auf der Leiterplatte. Durch die Verwendung von Kameras und CCD-Sensoren kann die Position des Bauteils automatisch erkannt werden.

#### Résumé

Les systèmes à vision et à CCD permettent un dépôt de fluide précis sur les cartes électroniques. Grâce à l'utilisation de caméras et de capteurs CCD, la position des composants peut être détectée automatiquement.

#### Резюме

Системы с камерой и датчиком CCD обеспечивают точное нанесение жидкости на печатные платы. Благодаря использованию камер и датчиков CCD, положение компонентов можно автоматически определять.

#### Сводка

Системы с камерой и датчиком CCD обеспечивают точное нанесение жидкости на печатные платы. Благодаря использованию камер и датчиков CCD, положение компонентов можно автоматически определять.

#### dark, point-to-point method

The point-to-point method is a simple way to teach a robot. It involves moving the robot's end effector to the desired location and then recording the position. This process is repeated for each point on the path. The robot then moves from point to point, dispensing fluid at each location. This method is simple and easy to learn, but it can be time-consuming and requires a lot of programming.

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#### vision-guided systems

Vision-guided systems use a camera to detect the location of the workpiece. The camera is mounted on the robot's end effector, and the robot moves until the workpiece is in the center of the camera's field of view. This method is simple and easy to learn, but it can be affected by changes in the workpiece's position or orientation.

#### CCD camera

CCD cameras are used to detect the location of the workpiece. They provide high-resolution images that can be processed by a computer to determine the position of the workpiece.

#### 1Q2 Kunde

1Q2 Kunde is a leading provider of vision-guided systems for fluid dispensing. Our systems are highly accurate and repeatable, making them ideal for high-volume production. We offer a range of solutions to meet your specific needs.

#### Kontakt

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