

Odd-Size Components on PCB

Selfie Aligner – Business Case

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Assembly industry:

Assembling of electronic devices is highly automated. PCBs can be equipped with SMD components in a fully automated process but odd-size components often have been mounted manually.

Discrete components are typically mounted with legs through holes in the PCB (THT). For devices made in small series capacitors, coils or fans are often hand mounted by an operator.

The many different sizes and shapes makes it difficult to automate this part of the manufacturing process.

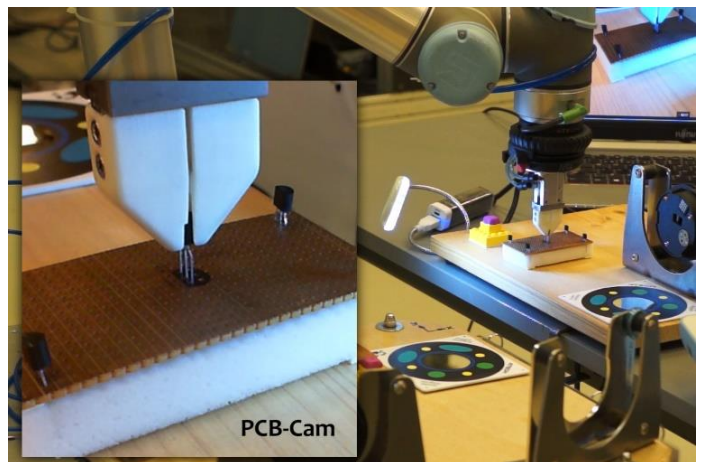
With the Selfie Aligner a mobile robot can now move between different work stations, calibrate its position and mount odd-size components.



Henning Forbech

To show this principle we have made a small demonstration where a mobile robot first align to a workplace and then mount a small BC-547 transistor in a PCB:

<https://vimeo.com/908762499/798a04ae5b>



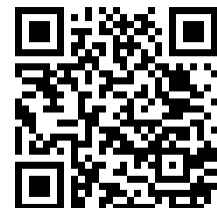
Mounting transistor in PCB with mobile robot

The mobile robot can navigate in a factory designed for human workers. With the Selfie Aligner the mobile robot can calibrate its position and work with equipment set up for humans.

Automatization of precise montage work is now possible on existing workplaces, designed for manual operation and without changing the factory layout. Automation with mobile robots of trivial work is even possible for high mix, low volume production.



PCB demo



Wax demo

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