

Machine Tending

Selfie Aligner – Business Case

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Machine Tending with mobile robot:

Production on CNC machines are often automated by letting a robot arm changing workpieces. Raw blanks and finished parts must be stored in reach of the robot arm. This is a limitation for how many items can be produced before an employee must service the machine.

If the parts are delivered to the CNC machine by a mobile robot the production can run continuous. But a AGV or ARM can only place the storage module with a low precision. To pick and place small parts in this mobile storage the robot must be able to measure how it is placed in relation to the robot with high accuracy. The Selfie Aligner can provide this accuracy.

An even more advance setup would be to let a mobile robot serve more CNC machines.

By using the Selfie Aligner to calibrate the mobile robot to each machine the robot will be able to replace even small parts in the CNC machine.

To show the high accuracy of the Selfie Aligner we have made a 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





PCB demo

The mobile robot can not only replace workpieces. It can also replace tools and keep the CNC machine run for a long time without manual support.

Here a mobile robot from JAKA service a CNC machine. The robot arm moves finished parts from the CNC machine to a fixture on the mobile unit and pick up raw blanks from a local stand and place them in the CNC machine.



https://youtu.be/avgypVHHaQ8

The Selfie Aligner will be an enabler for using mobile robots for machine tending.

Contact us for more information.

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