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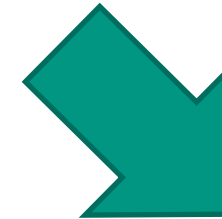
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# The development and use of industrial robots – the educational/work science perspective – part 2

[www.pi4.de](http://www.pi4.de)

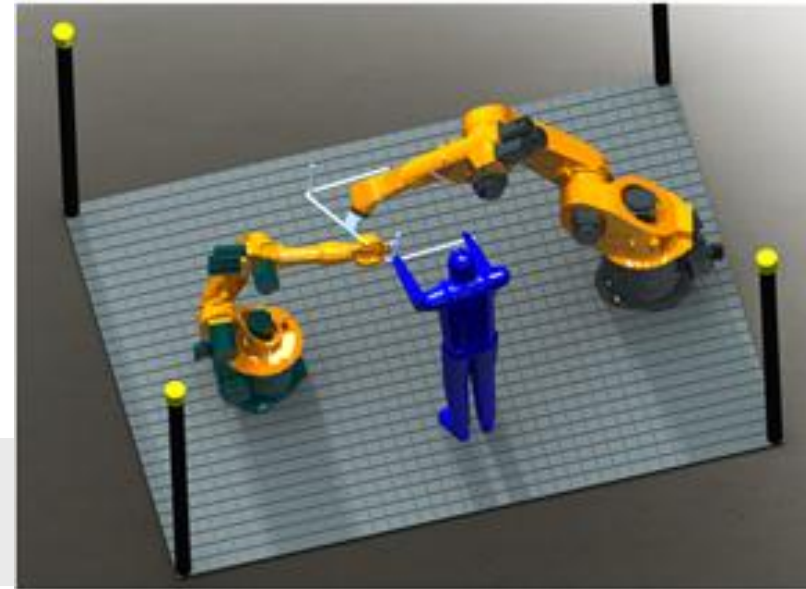


Additional „robot  
experts“



Skilled workers

The robot picture was taken from  
<http://www.fraunhofer.de/de/presse/presseinformationen/2010/12/roboter-workerbot.html>



## Project time

Start: 07.10.2010  
Duration: 3 years

## Target

Development and design of a versatile welding cabin  
with cooperating robots

## Skilled workers' tasks

Program and reassemble the welding cabin (Teach-In  
and offline programming)

More information on the project:  
<http://www.proaktiv.de/de/default.html>

### Implication 1

Knowledge of robotics needed (for maintenance and repair duties)

### Implication 2

Knowledge of Human-robot-interaction needed

### Implication 3

Skilled workers duties change (more duties upwards and downwards)<sup>1</sup> → Work process knowledge needed

### Implication 4

Still Knowledge of how to do the „robot-job“

### Implication 5

Knowledge of security rules needed

<sup>1)</sup> Heinen, Simon / Frenz, Martin / Schlick, Christopher M. (2011): Geänderte Rollen prägen den Prozess. Umgang mit wandlungsfähigen Produktionssystemen

**Thank you for your attention**