

Robotic Maintenance and Disassembly of Large Structures

Objectives:

- Handling of very large/heavy parts by novel kinematics/machinery
- Productive/safe/intuitive human-robot cooperation
- Transfer of process-knowledge and skills + machine learning
→ (“task/skill macros”)



Expected results:

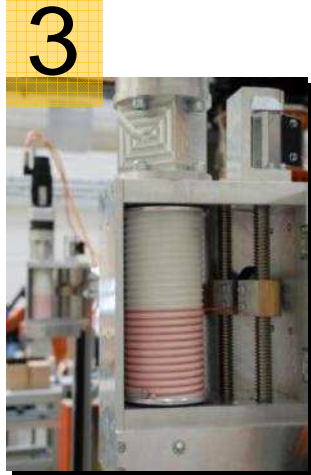
- Kinematics kit as a marketable platform
- Efficient operation in maintenance/assembly for end-user
- Demonstrations

PPP: FoF Topic FoF.NMP.2011-3

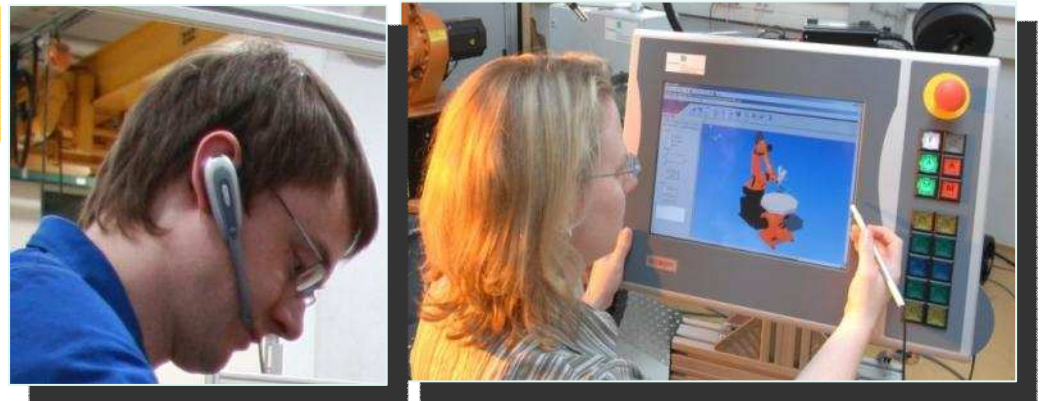
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Modular, safe
wire robot
kinematics

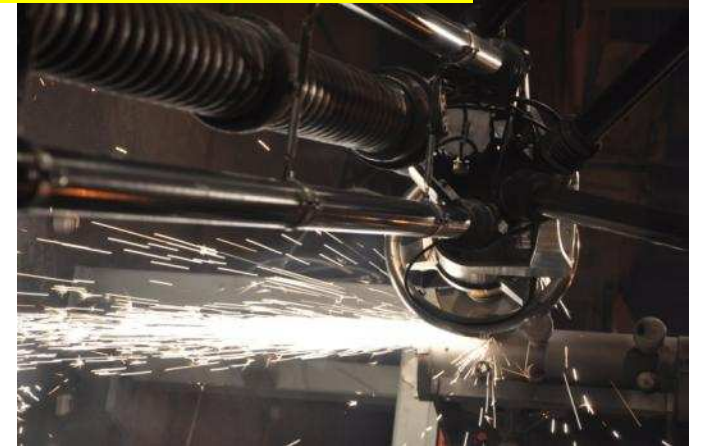


2



Intuitive instruction and cooperation

4



Process and task adaptation and learning

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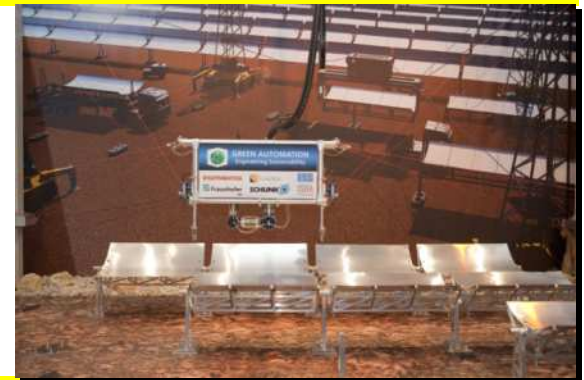

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Looking for **industrial partners** offering:

- Challenging use cases in post-production, maintenance etc.
- Interest in exploitation of large kinematics kit (working lab demonstrator exists!)



Fraunhofer IPA: Most experienced partner in robotics research and application:

- Control, kinematics, sensors, safety
- Robot based manufacturing/remanufacturing processes
- Robot applications
- Extensive network in manufacturing, automation

- Lead in SMErobot (FP6)
- Experienced in EC funded research

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