

Development of Smart Robot for Revolution of Industry

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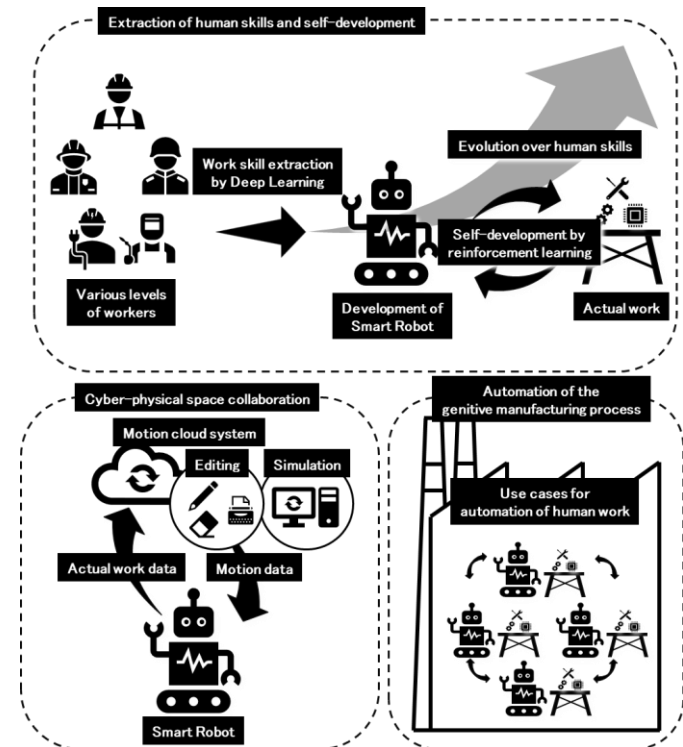


Summary :

If the skills contained in the motion of experienced worker can be extracted and transferred to a robot, the scope of automation can be expanded to include atypical tasks (i.e., tasks that flexibly adapt to changes in the characteristics of an object) that are impossible with existing industrial robot. In order to achieve the above goals, the issues that need to be resolved are as follows.

1. The robot could acquire the skills of each experienced worker (learning skills).
2. Utilizing the expertise of experienced workers contained in the acquired skills to enable the robot to perform flexible movements adapted to the work object (using skills).
3. Evolving the robot ability to respond to all situations, including the unexpected and unknown (evolving skills).

The above issues can be solved by making robots smarter through advanced integration of real haptics and AI technologies. The project will bring some key technologies in the manufacturing process appeared in smart society.



The goal of smart robotics.