

M.S. GIL, S.H. KIM, H.G. KIM, M.S. KANG, C.S. HAN. **An easy handling system for installing heavy glass using human robot cooperation.** *Gerontechnology* 2012;11(2):371; doi:10.4017/ gt.2012.11.02.435.00

Purpose Glass is widely used as finishing material for a good appearance of a building inside and outside. Moreover, the trend is to make this construction material and component larger and heavier. To safely and easily install this heavy duty and fragile glass, we propose an easy handling robot (EHR) system for glass installation work. **Method** We used an intuitive installation method¹; robot analysis using robotics²; robot design; dynamic analysis using DAFUL³. **Results & Discussion** The EHR-system is divided into mobile, manipulator, and human robot cooperation (HRC) algorithm parts. We designed the mobile and manipulator, we then verified using DAFUL. We verified the HRC-algorithm by experiment. It is expected that the EHR-system will make this type of work easier and safer (*Figure 1*).

References

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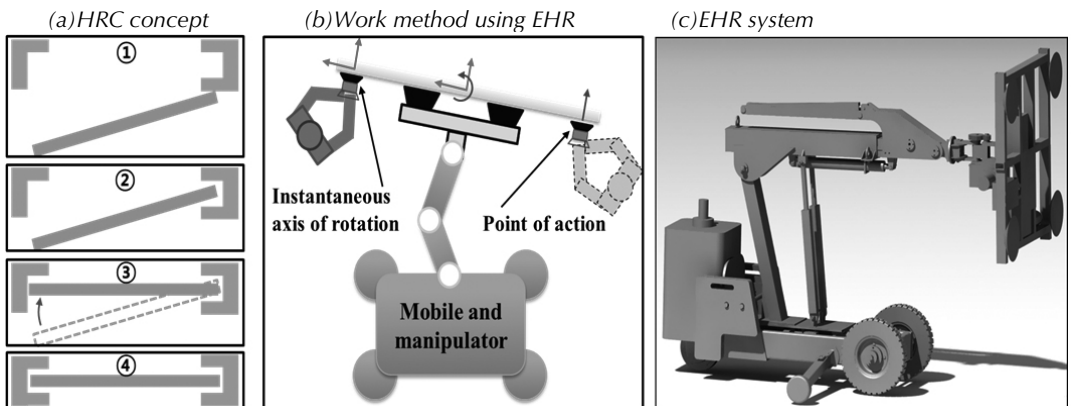


Figure 1. Easy handling robot system