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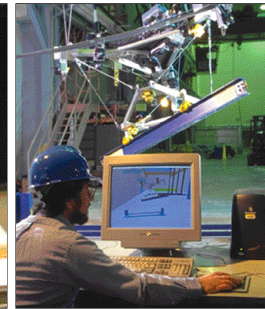
21

3D

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- material handling



▲ NIST RoboCrane.

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(construction automation and robotics) .

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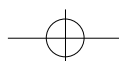
, 2000

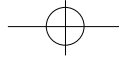
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가 . 가 . (robotic) 가 (Man - Machine Interface : MMI) () 가 (manipulator) 가 (tele-operated) (end-effector)), (), ((full - scale) 가 (multi-disciplinary) 가 1980	가 가 1970 (big 5) (technology transfer) R&D 가 wall climbing (factory automation)	(ASIMO) (humanoid robot) 가 가 1980 가 (labor union) 가 human - robot collaboration interface 가 (NIST)
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