

Title (en)
ROBOTIC SYSTEMS UTILIZING OPTICAL SENSING.

Title (de)
ROBOTERSYSTEME MIT VERWENDUNG OPTISCHER FÜHLER.

Title (fr)
SYSTEMES ROBOTISES UTILISANT UNE DETECTION OPTIQUE.

Publication
EP 0144345 A4 19870302 (EN)

Application
EP 84901713 A 19840416

Priority
US 49888183 A 19830527

Abstract (en)
[origin: WO8404723A1] Two opposing fingers (30, 32) of a robot hand are each provided with an array (36, 40) of optical devices in optical communication with one another across the gap between the fingers. One finger is provided with an array of light emitters (31e) and the other is provided with an array of light receptors (31r), each of the light emitters being coupled, on a one-to-one basis, with each of the light receptors. An object (29) between the fingers blocks light transmission between different ones of the emitter-receptor pairs, whereby various information about the object, e.g., its shape, position and/or movement, can be detected.

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B25J 19/00; G05B 19/42

IPC 8 full level
B25J 13/08 (2006.01); **B25J 15/08** (2006.01); **G01B 11/00** (2006.01); **B25J 19/02** (2006.01); **B25J 19/04** (2006.01); **G01B 11/02** (2006.01)

CPC (source: EP US)
B25J 13/082 (2013.01 - EP US); **B25J 19/021** (2013.01 - EP US)

Citation (search report)
• [X] EP 0045174 A1 19820203 - FANUC LTD [JP]
• [XP] PROCEEDINGS OF SPIE - THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING, INTELLIGENT ROBOTS: THIRD INTERNATIONAL CONFERENCE ON ROBOT VISION AND SENSORY CONTROLS RoViSeC3, 7th-10th November 1983, Cambridge, Massachusetts, vol. 449, part 2, pages 589-595, SPIE - The International Society for Optical Engineering, Washington, US; G. BENI et al.: "Dynamic sensing for robots - An analysis and implementation"
• See also references of WO 8404723A1

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