

Microassembly Processes and Microassembled Devices

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Abstract

Many future micro-scale products will rely on flexible microassembly systems that are capable of assembling three dimensional structures with high precision and repeatability. This is not only because of limitations imposed by clean-room processes but also because of the high-complexity of new sensor and actuator designs. Introducing new techniques into existing assembly systems for more complex components and higher output yield is crucial for industry acceptance. This paper presents an advanced 6 DOF microassembly system that allows the dexterous manipulation of parts of a large range of size and also serves as a test platform for a series of concepts.

Keywords: micro-assembly, micro-manufacturing

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