A New theory of MEMS Assembly System
Hongchang Tian *, Xiaoyang Kang
Xidian University, School of Mechano-Electronic Engineering, POBox0174, Xifeng Road
Xinglong, 266, Xi’an, China

There are nearly 20 years since MEMS presented as a system, but the mass production of MEMS can never be touched except those so called “MEMS”— micro-transducers. Just because of the existing assembly system of MEMS was ineffective when it came to the mass production. The reason is that people was misleading by the assembly theory of the normal machines. Thus the MEMS assembly system was totally different from them.

The first part here is dedicated to the new theory of MEMS assembly system. The differences of the MEMS assembly system will be demonstrated, some of them are first to be talked. We take it for granted that the MEMS should be assembled one by one, and which makes us failed to achieve the assembly. So the theory comes up with a new understanding of MEMS assembly, which is very important to simplify the MEMS assembly. And a new mathematical and physical assembly model of MEMS is built in the degree of μm. The corresponding models for graphics and numerical simulations will be shown.

Furthermore, a virtual reality test about mass production of MEMS will be shown. By using the new assembly theory and the new understandings, it will be demonstrated that how it can be used in the mass production of MEMS.

Keywords: MEMS, assembly theory, assembly system, virtual reality, simulations

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* Corresponding author.
Email addresses: memsreal@gmail.com (Hongchang Tian), memsworks@gmail.com (Xiaoyang Kang).