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A Design for Assembly Methodology Based on MTM standards

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Abstract: A comprehensive design for assembly methodology is presented in this paper. It is based on MTM standards. This will enable product designers to not only design for ease of assembly but also quickly compute the amount of assembly time per component. The total amount of assembly time per product can be computed as well. A product/system that is easy to assemble tends to lend itself to expedited manufacturing cycle times by means of reducing the time required during product assembly. Similarly, the methodology also makes special concessions for incorporating ergonomic factors such as assembly force, posture, repetitive motions etc during the assembly process. This paper presents the aforementioned methodology as well as a real life case study to corroborate its utility value.

Keywords: Assembly, Design, MTM, Assembly Time