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# Path planning for simulating human motions in manual assembly operations

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## Abstract

Assembly operation simulation can e.g. be used for optimizing complex manual assembly processes in the automotive industry. However, realistic human motion modeling involves difficult tasks such as inserting objects that require constraint definitions and collision detection. In this work, a method that applies the concept of an optimized potential field is employed to generate a motion model unit for simulating human motion for the assembly of pedal cars. This motion model unit is implemented into the newly created MOSIM motion modeling interfaces that is currently being standardized. This approach may allow motion simulation without being tied to a specific 3D environment.

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