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Simulation of human locomotion system

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SUMMARY

The study of human locomotion presents both theoretical and practical interest from the biomechanical and robotics points of view. This paper deals with mathematical modelling of biped gait in the sagital plane, neglecting at the moment motion in the frontal plane. A multi-link system made up of one trunk and two legs will be considered. The Lagrangian for the 5-link 2-D biped system was carried out and the equations of motion for slow walking speed are given. The computer simulation is performed for different walking speeds. A mathematical model for fast and slow walking is suggested.