

Design of a four-legged walking robot.

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Abstract: This topic focuses on designing and manufacturing an autonomous mechanical system capable of moving using four-legged joints. The context of the topic stems from the widespread application needs of robots in various industries, particularly in environmental care and heavy labor support. The objective of this research is to develop a flexible locomotion system with high adaptability to address issues of autonomous operation. Throughout the research process, theoretical aspects such as kinematics and biomechanics will be combined with experimental trials to create a highly applicable product. The expected outcome of the topic is to provide the information technology community with a new solution in designing autonomous mechanical robots, contributing to the advancement of engineering and technology.

Keywords: Four-legged robot, Autonomous mechanics, Autonomous movement