二足機器人行走模式之研究

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摘 要

為推展機器人設計方法，發展高行走能力的二足機器人。本論文研究二足機器人行走模式，經由運動 方程式的推導，行走軌跡的參數化，並探討其於不同地形行走之可行性。研究步驟分為規劃行走方式、 靜態重心平衡、零力矩點理論求動態重心平衡、逆運動學方程式求關節旋轉角、電腦程式模擬其行走模 式，再觀察其行走於不同地形的可行性，分析此二足機器人行走能力及方法。 由訂定機器人行走任務、運動理論推導、數值參數結果模擬，分階段循序探討二足機器人行走模式，提供相關領域人員發展建立二足機器人的資訊。

關鍵詞 : 二足機器人，零力矩點，逆運動學方程式

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