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ZagHexa: Design, Construction and Control of a Hexapod Walking Robot

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This paper presented Design, Construction and Control of a six-legged walking robot that is capable of basic mobility tasks such as walking forward, backward, rotating in place and raising or lowering the body height. The legs are of a modular design that have three degrees of freedom each. This robot will serve as a platform onto which additional sensory components could be added, or which could be programmed to perform increasingly complex tasks. The components that make up our final design are discussed. Also, we describe the basic robot gaits of locomotion for efficient navigation. This locomotion is tuned to make the robot faster and at same time energy efficient to navigate and negotiate difficult terrain.