

Intelligence Moving Robot Arm for Industrial Application

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Abstract: *In this paper we propose a way to accomplish Human Computer Interface absolutely in electronic way (without mechanical sensors). The idea is to extirpate old techniques of controlling Robotic arm using joysticks, buttons and supersede with more intuitive technique i.e., to control robotic arm by hand motion or gesture. Here we propound an approach to achieve the aforementioned idea employing Image processing technique using web camera. We detect the vital features of hand: fingers by computational geometry calculation enabling real time interaction between hand gestures and Robot. Our system can meticulously locate fingers even when fore-arm is involved. And the system can sustain a certain rotation of palm and fore-arm, which augments the freedom of use in palm center estimation. The work proposes constructive design of hand gesture control robot. This system acts as a channel between the human and the robot.*

Keywords: *RF 433 Module, ADXL335, Image Processing, Hand Gesture Recognition, Robotic Arm Motion and Motion Control*

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