MINI ROBOTIC ARM
BASED ARDUINO AND VISUAL BASIC 6.0
FOR ARDUINO MICROCONTROL LEARNING IN ATMI CIKARANG

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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Microcontroller is a kind of courses in mechatronics concentration. In this course, students learn about the basics of microcontroller and how to control a system with microcontroller. Not only theoretical, but also practice. There are many types and brands of microcontroller. But during this time, microcontroller which is used for education course in ATMI is only Atmega Microcontroller. To improve student's knowledge about microcontroller, there will be an additional course about another microcontroller in student's diatomic practice. ATMI need a simple hardware which is completed with user interface to support that course. Based on this case, the author will try to make a Mini Robotic Arm Based Arduino and Visual Basic 6.0. This project started with literature review of relevant journal, mechanical hardware design, electrical hardware design, software design. Anthropomorphic 3 Revolute Joint manipulator arm is choosen as the mechanical hardware, arduino uno board as the electrical hardware, Arduino IDE and Visual Basic 6.0 as the software, and support material about inverse kinematic. This project has successfully create Mini Robotic Arm Hardware and Software which can move from initial point to desired position. Then the analytical method will be, angle error value, coordinate error value.

Keywords: Arduino, Visual Basic 6.0, Microcontroller, Robotic Manipulator.

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DEDICATION

I dedicate this works for the better,

The smarter,

The greater,

ATMI Cikarang.

Ad Maiorem Dei Gloriam,

Deum In Omnibus

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Author,

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