بسم الله الرحمن الرحيم

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Dedication

To my parents …

To my teachers …

To my brothers …

To my sisters …

To my friends …

To my all relatives …

Acknowledgment

All praises and glory be to Allah lord of the worlds, the most beneficent, and the most merciful. His blessing be upon his prophet Mohammad and all the prophets before him.

This work could not have come to light if not through the guidance of my supervisor Dr. Abd Elfttah Bilal. I thank him greatly for his encouragement, time, criticism and advices.

We wish also to thanks Eng. Ahmad Zumrawi for his help in the software of the project. Moreover, special grateful thanks for Eng. Yousif Ishag for his help in hardware. I would like to show my deepest gratitude to our teachers, and department for their friendship, help and kindness through the years of study.

Abstract

This project indicates the steps of the design of handling system model used in control of warehouse, This automatic gripper moves in two axis (X, Y) to any programmed points. Beside, the project indicates the using of stepper motors to realize the purpose and how to control in stepper motors by using suitable control circuit.

This project discuses the method of interfacing between stepper motors and personal computer. Also it contains a program to manage a hardware of model written in high level language (DELPHI.7 PROGRAM) to realize a desired movement.

هذا المشروع يوضح خطوات تصميم نموذج نظام مناولة آلي يستخدم للتحكم فى المخازن, هذا النظام يتحرك فى محوري (X -Y) الى أى نقطة محددة فى المحورين تتم برمجتها. بالاضافة الي ذلك هذا البحث يوضح خطوات استعمال المحركات الخطوية لتحقيق الحركة وكيفية التحكم فيها باستخدام دائرة تحكم مناسبة.

يناقش هذا البحث طرق الربط بين محركات الخطوة والحاسب الشخصي. ايضا يحتوي هذا البحث علي برنامج مكتوب بلغة ديلفي (Delphi ver.7) التي تعمل كوسيط بين المستخدم والحاسب لتحقيق الحركة المطلوبة.

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