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DEDICATION

To my parents , brothers and sisters.

To the soul of my nephew Abozar(may Alla bless him).

To my big family , teachers and friends .

ABSTRACT

The purpose of this research is to show the importance of automation the manufacturing operation. This research is about automated poultry stratification weighing system by using conveyer belt driven by DC motor ,DC arm motor to control the flow of poultry in the Conveyer belt , Digital weighing and the Leave line is implemented .The flow of the poultry is also monitored by IR photo sensor .The whole system is controlled by BASIC STAMP2 microcontroller BS2

المستخلص

يهدف هذا البحث لعرض أهميه أتمتة العمليات الصناعية .كما يوضح البحث أتمتة عمليه فرز أوزان الدواجن باستخدام سير ناقل يتحرك بواسطة موتور(دي سي) تيار مباشر , زراع تعمل بواسطة موتور (دي سي) تيار مباشر أيضا للتحكم في انسياب الدواجن في السير الناقل و الميزان الرقمي وخط المغادرة . حركة الدواجن في السير الناقل تراقب بواسطة حساسات (اي ار) أشعة تحت الحمراء .

التحكم قي النظام إجمالا يتم بواسطة المتحكم الدقيق (بي اس 2) (بيسك استامب 2) .

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List of Abbreviations

Bit	binary digit
BS	BASIC STAMP
BS1	BASIC STAMP 1
BS2	BASIC STAMP 2
BS2E-IC	BASIC STAMP 2 Experience Integrated Circuit
CAD	Computer Aided Design
CAM	Computer Aided Manufacturing
CD	Compact Disc
CDROM	Compact Disc Read Only Memory
DC	Direct Current
DIP	Dual in-line Package
EEPROM	Electrical Erasable Programmable Read Only Memory
ICs	Integrated Circuit
I/O	Input Output
IR	Infrared
LED	Light Emitting Diode
MB	Megabyte
MHZ	Megahertz
OME	Original Equipment Manufacture
PC	Personal Computer
PIC	Programmable Interface Controller
RAM	Random Access Memory
USB	Universal Serial Bus

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Chapter Two
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Pneumatic Actuators For power, motion and control

Appendix B
ULN200X

Sudan University of Science and Technology

College of Graduate Studies

The Partial Research to Fulfillment The Degree of

M.Sc In Computer Engineering

Modeling Design for
Automated Poultry Stratification Weighing System
تصميم نموذج لأتمتة نظام فرز اوزان الدواجن

Submitted by:

Mohamed Elkhatim AbdAlla Babiker

Supervisor:

Dr-Abdelrasoul .G. Alzebaidi

January 2011

بسم الله الرحمن الرحيم

{اللَّهُ لَا إِلَهَ إِلَّا هُوَ الْحَيُّ الْقَيُّومُ لَا تَأْخُذُهُ سِنَةٌ وَلَا نَوْمٌ لَهُ مَا فِي السَّمَاوَاتِ وَمَا فِـي الْأَرْضِ مَـنْ ذَا الَّذِي يَشْفَعُ عِنْدَهُ إِلَّا بِإِذْنِهِ يَعْلَمُ مَا بَيْـنَ أَيْـدِيهِمْ وَمَا خَلْفَهُمْ وَلَا يُحِيطُونَ بِشَيْءٍ مِنْ عِلْمِـهِ إِلَّا بِمَـا شَاءَ وَسِـعَ كُرْسِـيُّهُ السَّـمَاوَاتِ وَالْأَرْضَ وَلَا يَئُودُهُ حِفْظُهُمَا وَهُوَ الْعَلِيُّ الْعَظِيمُ}

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