

**RECONDITIONING AND DEVELOPING ASM ROBOT FOR EDUCATIONAL
PURPOSE**

By

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ID: 1-1107-037

A Thesis submitted to the Faculty of

ENGINEERING

Department of MECHATRONICS

In Partial Fulfillment of the Requirements for

BACHELOR DEGREE IN

MECHATRONIC

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September 2011

Revision after the Thesis Defense 29th July 2011

STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, 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

RECONDITIONING AND DEVELOPMENT OF ASM ROBOT

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ASM robot is a 5 axes manipulator designed by Association of Swiss Engineering Employers and manufactured by Mechatronic students of Swiss German University in cooperation with Siemens vocational students during their Internship in year 2004. The purpose was applying mechatronic subject and learning how to machining a product, that can be assembled and could be controlled manually by a user.

This ASM robot was modified and changed from its original design, due to the limitation to find the right components and parts in local market. The Robot has some problems which is mainly at shoulder and arm, there is also some missing part at the grippers, missing program, and using an old system interface.

The purpose of this thesis is to recondition the robot and to build a communication capability and to develop a HMI (human machine interface) between the user and the robot, so the user easy to monitoring and analyzing the movement of the robot. This robot then can be used and adopted in the Robotic Subject and Manufacturing Automation subject for academic purposes in SGU.

Keyword: reconditioning, system development, communication, and HMI (Human Machine Interface) display.

DEDICATION

Firstly, I dedicate this thesis for God Almighty that always give me strength, patience, motivation, health, and because of HIM, I can finish this thesis project on time.

To my beloved family, my parents who help my financial needs to buy all the materials for the thesis project, my brothers, my colleagues and all people who support and help me.

I hope this report is able to help the reader to inquire the information regarding this thesis.



ACKNOWLEDGMENT

The author wishes to thank everyone who has given their support. First of all, the author would like to thank Dipl-Ing Maralo Sinaga, who always give a hint and motivation during working this thesis project, his effort and help during the course was so much appreciated.

A special thanks to the family who was given their best support for the completion of this thesis. However, their moral and financial support proved to be of a great encouragement.

Also a special thanks to Mohamad Cepi Hanafi, S.S.T, Murijanto Yosafat, Soedarso Daniel, George Pramudita., Taslim Putra.A, Sumawi.James, and Sugiana. A. Who during the process of completing the thesis provided many support.

Finally, the author wishes to thank Swiss German University, for all the support.

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TABLE OF CONTENTS

| | |
|---|----|
| STATEMENT BY THE AUTHOR | 2 |
| ABSTRACT | 3 |
| DEDICATION | 4 |
| ACKNOWLEDGMENT | 5 |
| TABLE OF CONTENTS | 6 |
| LIST OF TABLES | 11 |
| LIST OF EQUATIONS | 11 |
| LIST OF FIGURES | 11 |
| CHAPTER 1 - INTRODUCTION..... | 15 |
| 1.1 Background | 15 |
| 1.1 Thesis Purpose | 15 |
| 1.2 Thesis Scope | 16 |
| 1.3 Thesis Limitation | 16 |
| 1.4 Methodology | 16 |
| 1.5 Thesis organization | 17 |
| CHAPTER 2 - LITERATURE REVIEW..... | 18 |
| 2.1 Introduction..... | 18 |
| 2.2 Robot..... | 18 |
| 2.2.1 KUKA ARM robot (Keller und Knappich Augsburg)..... | 19 |
| 2.2.2 ABB Group (ASEA Brown Boveri) | 21 |
| 2.2.3 DENSO (Industrial Robotics) | 22 |
| 2.2.4 Robotic Arm produced by Swiss German University..... | 24 |
| 2.3 Control system | 25 |
| 2.3.1 Manual control | 25 |
| 2.3.2 Human Machine Interface or computerized control | 27 |
| 2.4 Communication and the Protocol..... | 27 |
| 2.4.1 Protocol | 29 |
| 2.4.1.1 Modbus protocol | 29 |
| CHAPTER 3 - METHODOLOGY OF RECONDITIONING AND DEVELOPING ASM ROBOT | 30 |
| 3.1 Introduction..... | 31 |

| | | |
|----------|--|----|
| 3.2 | Mechanical | 31 |
| 3.2.1 | Mechanical Problem | 31 |
| 3.2.2 | Mechanical Solution | 32 |
| 3.2.3 | Motor..... | 34 |
| 3.2.4 | Problem with the motor and bracket | 35 |
| 3.2.5 | Solution of motor bracket and housing | 35 |
| 3.3 | Electrical System..... | 38 |
| 3.3.1 | Existing electrical system..... | 38 |
| 3.3.1.1 | DC Power Supply..... | 38 |
| 3.3.1.2 | The Previous controller | 39 |
| 3.3.1.3 | Stepper Motor Driver | 41 |
| 3.3.1.4 | DC Motor driver..... | 42 |
| 3.3.1.5 | Wiring..... | 43 |
| 3.3.2 | The Reason why the system should be renewed..... | 44 |
| 3.3.3 | The Electrical Reconditioning | 45 |
| 3.3.3.1 | Power Supply | 45 |
| 3.3.3.2 | Voltage Regulator | 45 |
| 3.3.3.3 | The Wiring | 46 |
| 3.3.3.4 | Connector Circuit | 46 |
| 3.3.3.5 | The New System | 48 |
| 3.3.3.6 | Local Controller and the slave | 50 |
| 3.3.3.7 | The Pin Assignments..... | 51 |
| 3.3.3.8 | Motor Driver | 53 |
| 3.3.3.9 | H-Bridge (L298 Dual Full bridges Driver) | 53 |
| 3.3.3.10 | Motor stepper Driver L293D (quadruple Half-H driver) | 54 |
| 3.3.3.11 | Rotary encoder sensor | 55 |
| 3.3.3.12 | Joystick and Limit Switch..... | 59 |
| 3.4 | Programming and Flowchart..... | 60 |
| 3.4.1 | Code Vision Wizard AVR | 60 |

| | | |
|-----------|--|----|
| 3.4.1.1 | USART | 61 |
| 3.4.1.2 | PORTS | 61 |
| 3.4.1.3 | TIMERS | 61 |
| 3.4.1.4 | External IRQ | 62 |
| 3.4.2 | Testing Program..... | 62 |
| 3.4.3 | Master (Local Controller I) and Local Controller II | 63 |
| 3.4.3.1 | Nesting | 63 |
| 3.4.3.2 | Joystick Program | 64 |
| 3.4.3.3 | DC Motor Program..... | 65 |
| 3.4.3.4 | Gripper Program..... | 66 |
| 3.4.4 | Local Controller III | 66 |
| 3.4.4.1 | Full Step Sequence | 67 |
| 3.4.4.2 | Half Step Sequence | 67 |
| 3.4.5 | Program Development | 69 |
| 3.5 | Communication and Protocol..... | 69 |
| 3.5.1 | Modbus protocol | 70 |
| 3.5.2 | Transactions on Modbus Networks and RS-232..... | 70 |
| 3.5.3 | The Query | 71 |
| 3.5.4 | The Response | 71 |
| 3.5.5 | The example of the protocol | 71 |
| 3.5.6 | Communication Transceiver | 71 |
| 3.6 | Conclusion | 72 |
| CHAPTER 4 | - RESULT & DISCUSSION | 73 |
| 4.1 | Introduction | 73 |
| 4.2 | Mechanical Reconditioning | 73 |
| 4.2.1 | Mounting Motor and Housing Motor..... | 73 |
| 4.2.2 | Mechanical result | 74 |
| 4.3 | Electrical Reconditioning and Program Development..... | 74 |
| 4.3.1 | The controllers, the motor drivers and the source code | 75 |
| 4.3.1.1 | Local Controller I..... | 75 |

| | |
|--|-----|
| 4.3.1.2 Local Controller II..... | 76 |
| 4.3.1.3 Local Controller III | 76 |
| 4.3.2 Connector..... | 78 |
| 4.3.3 Sensor Photo Interrupter | 79 |
| 4.4 Communication system..... | 80 |
| 4.4.1 Master and Slave configuration | 80 |
| 4.4.2 The Protocol and Data Packets | 81 |
| 4.4.2.1 Local Controller I..... | 82 |
| 4.4.2.2 Local Controller II..... | 82 |
| 4.4.2.3 Local Controller III | 83 |
| 4.5 Movement Results..... | 83 |
| 4.5.1 End Effectors..... | 83 |
| 4.5.2 Shoulder | 85 |
| 4.5.3 Lower Arm and Upper Arm..... | 85 |
| 4.5.3.1 Movement Problem | 86 |
| 4.5.3.2 Problem Encounter | 88 |
| 4.5.3.3 Bolt Configuration Problem and Solution..... | 90 |
| 4.5.3.4 Friction problem and Solution | 91 |
| 4.5.3.5 Lower Arm's Problem..... | 91 |
| 4.5.4 Gripper | 92 |
| 4.6 Human Machine Interface..... | 93 |
| CHAPTER 5 - CONCLUSION AND RECOMMENDATION | 96 |
| 5.1 Conclusion | 96 |
| 5.2 Recommendation | 97 |
| 5.2.1 Mechanical | 97 |
| 5.2.2 Electrical | 97 |
| 5.2.3 Absolute Encoder | 97 |
| 5.2.4 Sensor Detection | 98 |
| 5.2.5 Standard Robot Programming..... | 98 |
| GLOSSARY | 99 |
| REFERENCES | 100 |

| | |
|--|-----|
| APPENDICES | 102 |
| APPENDIX A - Technical Drawing | 102 |
| APPENDIX B - Wiring and Schematic..... | 108 |
| APPENDIX C - Program Source Code | 114 |
| APPENDIX D - Datasheet | 136 |
| BILL OF MATERIAL | 147 |
| CURRICULUM VITAE | 148 |

