

ACKNOWLEDGEMENTS

Syukur Alhamdulillah to the Almighty Allah S.W.T for giving strength, patient and capability to complete my Final Year Project (FYP) with the scheduled period given and salawat and salam to his righteous messenger, Prophet Muhammad S.A.W. Because of Him can finish this proposal with having the enjoyable times and get more knowledge.

We would like to express our appreciation and gratitude to my Project Supervisor, Mr. Mohd Asyraf B Che Doi and Mr Mohd Fathullah bin Ghazli @ Ghazali and all lecturers, PLV and Technician of School of Manufacturing Engineering for their guidance, dedication and committed for having co-operation in instructed until finish this Final Year Project report. And very greatly indebted for their encouragement, guidance and support given before finished this proposal Thanks a lot for their supports and helps.

Not forgotten to express our special thanks to all friends especially to our entire classmate for their ideas and comments until our proposal can be done successfully.

Here, our heartfelt gratitude is also extended to our parents and housemates, their willingness to spend their precious time to guide. This proposal couldn't is as beneficial without their valuable guidance and help.

Last but not least, we would also say 'thank you' to all personal who are directly or indirectly involved during I was doing this project.

Thank you.

APPROVAL AND DECLARATION SHEET

This project report titled **Low Cost Ergonomics Improvement in Small & Medium Enterprise (SME)** was prepared and submitted by **Hanifah Binti Mohd Hasbullah Bushro** (Matrix Number: **071050203**) and has been found satisfactory in terms of scope, quality and presentation as partial fulfillment of the requirement for the **Bachelor of Engineering (Manufacturing Engineering)** in **Universiti Malaysia Perlis (UniMAP)**.

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2009/2010

PENAMBAHBAIKAN ERGONOMIK (KOS RENDAH) DI PERUSAHAN KECIL DAN SEDERHANA (PKS)

ABSTRAK

Ergonomik adalah penting dalam kehidupan kita seharian, tetapi tidak ramai pihak yang mengambil berat terhadap perkara tersebut. Dalam kehidupan seharian, kita tidak boleh lari daripada masalah ergonomik. Kita tidak menyedari bahawa kita duduk di kerusi yang terlalu rendah, meja terlalu tinggi, terlalu dekat dengan komputer, mengangkat barang yang berat, dan lain-lain. Akibatnya dalam jangka masa panjang akan memberi kesan sakit dan sakit ini sukar untuk sembuh kerana ia memerlukan rawatan kos yang besar seperti ia memerlukan pembedahan. Dalam projek ini, Penambahbaikan Ergonomik (Kos rendah) di Perusahaan Kecil dan Sederhana telah diberi kutamaan. Tujuan utama dari projek ini adalah untuk mengenalpasti isu-isu umum ergonomi / masalah di PKS dan juga akan melakukan perbaikan ergonomi kos rendah untuk PKS (syarikat yang dipilih). Rula, Reba dan NIOSH Lifting Persamaan adalah kaedah utama untuk mengenalpasti risiko ergonomik. Dari kaedah ini, nilai Rula dan Reba dapat dikenalpasti. Selepas persamaan dikira, ada beberapa proses perlu dititikberatkan untuk membuat penambahbaikan. Untuk memperbaiki masalah ergonomik di PKS yang dipilih, troli dan bangku kecil telah direkabentuk untuk membantu pekerja supaya dalam keadaan baik dan juga selesai dengan tugas.

LOW-COST ERGONOMICS IMPROVEMENT IN SMALL & MEDIUM ENTERPRISE (SME)

ABSTRACT

Ergonomics is important in our daily lives, but not many of attention on it. We cannot run from problems in the ergonomics in undergoing daily activities. We are not aware that we are sitting on a chair that is too low, the tables are too high, too close to the computer, too heavy to carry goods and others. Consequently in the long run we get sick and our long term illness and difficult to cure because it requires great care as an example requires surgery. This project studies and proposes ergonomics improvement in one of the Small & Medium Enterprises (SMEs). The main objectives of this project are to identify common ergonomics issues/ problem in SME and also to implement low cost ergonomics improvement for SME (selected company). RULA, REBA and NIOSH Lifting Equation is the primary method to identify ergonomics risk. From this method, the score of RULA and REBA has been identified. A few process needed to be improved after RULA, REBA and NIOSH Lifting Equation has been calculated. To improve the ergonomics problem, the trolley and small bench is designed and fabricated to help workers to work in good postural condition and also comfortable with their task.

TABLE OF CONTENT

	Page
ACKNOWLEDGEMENTS	ii
APPROVAL AND DECLARATION SHEET	iii
ABSTRAK	iv
ABSTARCT	v
TABLE OF CONTENT	vi
LIST OF FIGURE	vii
LIST OF TABLE	xi
CHAPTER 1 INTRODUCTION	
1.1 Background and Overview	1
1.2 Objective	2
1.3 Scope of Project	3
1.4 Problem Statement	5

CHAPTER 2 LITERATURE REVIEW

2.1	Ergonomics	7
2.1.1	Five Aspects of Ergonomics	8
2.2	Ergonomics Problem	8
2.2.1	Symptoms of Ergonomics Problem	9
2.2.2	Type of Ergonomics Problem	9
2.2.3	The main cause of Symptoms Ergonomics Problem	10
2.3	The Important of Ergonomics	10
2.3.1	Ergonomics in the Workplace	11
2.3.2	The Improvement needed at Workplace	11
2.3.3	Reason for Using Ergonomics	12
2.4	Industrial Issues	13
2.4.1	Reason to Implement an Ergonomics Process	14
2.4.2	Type of Ergonomics Improvement	15
2.4.3	Low Cost Ergonomics Improvement Reduce the Risk of MSD	16
2.4.4	Technical areas covered by Low Cost example	17
2.4.5	Simple Solution for Ergonomics	18
2.4.6	Benefit of Strategies Ergonomics	18
2.5	Case Study	19
2.5.1	Case Study 1 (Workplace Injury Risk Prediction and Risk Reduction Tool for Electronics Assembly Work)	19
2.5.2	Case Study 1 (Comparison of Method Rula & Reba for Evaluation Of postural Stress in Odontological Services)	21

CHAPTER 3 METHODOLOGY

3.1	The Problem Solving Process	23
3.1.1	General Flow Chart	24
3.2.2	Developments of this work were based on the following Phase	25
3.2	Ergonomics Job Improvements Process	27

3.3	Method	30
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CHAPTER 4 TROLLEY AND BENCH DESIGN

4.1	Design	33
4.2	Engineering Design	34
4.3	Final Drawing for Trolley	35
4.4	Final Drawing for Bench	36

CHAPTER 5 RESULT AND CONCLUSION

5.1	The Nordic Questionnaire	37
5.2	Before Improvement	40
5.2.1	RULA Method	40
5.2.2	REBA Method	43
5.2.3	NIOSH Lifting Equation	44
5.3	After Improvement	47
5.3.1	RULA Method	47
5.3.2	REBA Method	50
5.3.3	NIOSH Lifting Equation	52
5.4	Ergonomics Rule for Industrial Manual Handling Task, Particularly Lifting of Load	53

CHAPTER 6 CONCLUSION AND RECOMMANDATION

6.1	Conclusion	54
6.2	Future Design Improvement	55

REFERENCES	56
APPENDIX	
APPENDIX A	58
APPENDIX B	59
APPENDIX C	60
APPENDIX D	71
APPENDIX E	75
APPENDIX F	77
APPENDIX G	78

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LIST OF FIGURE

Figure	Page
1.1 Research Frameworks	4
3.1 General Flow Chart	24
5.1 Chosen Workstation For Improvement	38
5.2 Bar Chart For Nordic Questionnaire	40
5.3 Process at Workshop	41
5.4 Working Posture at two different process	45
5.5 Design for Improvement	47
5.6 After Improvement Process	48
5.7 Comparison RULA before and after	49
5.8 Comparison REBA before and after	51
5.9 Working Posture after Improvement	52

LIST OF TABLE

Table		Page
2.1	Technical areas commonly covered by the low cost Improvement used	17
5.1	RULA Posture Analysis Result	42
5.2	REBA Posture Analysis Result	43
5.3	NIOSH Lifting Information before Improvement	45
5.4	RULA Postural Analysis Result after Improvement	49
5.5	Percentage Improvement	49
5.6	REBA Postural Analysis Result after Improvement	51
5.7	Percentage Improvement	51
5.8	NIOSH Lifting Information after Improvement	53

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