


## STUDENT DETAILS

Name : <u>Muhammad Firdaus Arman bin Mispui'ad</u>	I/C No : <u>990220-01-5251</u>
Program : <u>SEMO</u>	Year of Study : <u>3</u>
Permanent Address : <u>No. 24, Jalan Molek 6</u>	H/P No : <u>017 7430678</u>
<u>Raman sayong Indah, Bandar Tenggara, 81440, Kelai</u>	
<u>Johor</u>	
Guardian's Name : <u>Mispui'ad bin Sam</u>	Phone No : <u>018 373 5807</u>
Guardian's Address : <u>No. 24, Jalan Molek 6, Raman sayong</u>	
<u>Indah, Bandar Tenggara, 81440, Kelai, Johor</u>	

## ORGANIZATION/INDUSTRI INFORMATION

Name : <u>Telephone Technology (M) Sdn. Bhd</u>	
Phone No : <u>07 6633322</u>	Fax No : <u>07 6631323</u>
Coordinator's Name : <u>Zulkifli</u>	
Duration of Training : .....	Position : <u>Supervisor</u>
From : <u>25/7/2022</u>	
To : <u>14/10/2022</u>	



## UNIVERSITY/FACULTY DETAILS

School of Mechanical Engineering Universiti Teknologi Malaysia 81310 UTM Johor Bahru Johor Darul Ta'zim	Supervisor's Name <u>ZULKIFLI BIN SULAIMAN LOW</u>
Telefon : 07-5557057	
Fax : 07-5566159	
E-Mail : <a href="mailto:tpfkm@mail.utm.my">tpfkm@mail.utm.my</a>	
Web-Site : <a href="http://www.fkm.utm.my">http://www.fkm.utm.my</a>	
Person should be contacted in case of emergency :	
<ul style="list-style-type: none"><li>• Dean</li><li>• Deputy Dean (Academic)</li><li>• Chairman of the Industrial Training</li></ul>	

## **Preface**

This log book is divided into 2 parts. The first part (Chapter 1 to 4) contains industrial training guidelines, log book instructions and filling up guidelines and guidances of preparing the industrial training final report. The second part (Chapter 5) contains tables of activity assessment form to be completed by relevant parties.

Section 8.1 - Student Overall Industrial training activities Gantt Chart

Section 8.2 - Table of Daily/Weekly Student Activity and Assessment Form by Company/Organization Supervisor

Section 8.3 - Assessment Form of Overall Student Activity by Faculty Supervisor

Section 8.4 - Table of Detailed Student Activity

This information will serve as a guidelines for the student while performing their industrial training. Also students should know their role and responsibilities.

Finally, it is hoped that all parties namely the students, company or organization and the faculty herself will benefit accordingly from the industrial training. It is also hoped that they will be able to accommodate themselves at the training place and be able to perform the task and responsibility given to them excellently.

To the companies/organization that have been willing to accept and train our students, the faculty would like to thank you and we hope that the good relationship will last with beneficial outcome to both parties.

Industrial Training Committee  
School of Mechanical Engineering  
Universiti Teknologi Malaysia

## CONTENTS

### STUDENT/COMPANY/ORGANIZATION AND UNIVERSITY/FACULTY DETAIL

PREFACE i

CONTENTS ii

	PAGES
1.0 INDUSTRIAL TRAINING GUIDELINES	1
1.1 Introduction	1
1.1.1 Background	1
1.1.2 Related Programs for Industrial training	1
2.0 GOALS OF INDUSTRIAL TRAINING	1
3.0 OBJECTIVES	1
4.0 SCOPE AND TRAINING PROGRAM	1
5.0 RESPONSIBILITIES OF STUDENTS	2
6.0 NOTES AND STUDENT'S REPORT	3
7.0 LOG BOOK INSTRUCTION	3
8.0 GUIDELINES FOR COMPLETING THE LOG BOOK	3
8.1 Students Overall Industrial Training Activities Gantt Chart	3
8.2 Table of Daily/Weekly Student Activity and Assessment Form by Company/Organization Supervisor	3
8.3 Assessment Form of Overall Student Activity by Faculty Supervisor	3
8.4 Table of Detailed Student Activity	3
9.0 ASSESSMENT OF TRAINING	3
9.1 Observations and Reports From Faculty's Supervisors and Supervisor's of the Company/Organization	4
9.1.1 Faculty's Supervisory Report (20%)	4
9.1.2 Industrial/Organization Supervisory Report (30%)	4
9.2 Log Book (10%)	4
9.3 Final Report (40%)	5
10.0 MARK WEIGHTAGE	5
10.1 Requirement of Pass Grade for IT	6
10.2 Plagiarism	6
11.0 SUMMARY OF ACTIVITY AND ASSESSMENT FORMS	6

## **1.0 INDUSTRIAL TRAINING GUIDELINES, FACULTY OF MECHANICAL ENGINEERING (FME), UNIVERSITI TEKNOLOGI MALAYSIA (UTM)**

### **1.1 INTRODUCTION**

#### **1.1.1 Background**

All Faculty of Mechanical Engineering undergraduate students are compulsory to attend 12 weeks Industrial Training during the period of their studies. This training is part of teaching course that provides exposure to the world of careers for students to all the theories which learnt in the lecture room with reality and are willing to be involved in the work environment.

#### **1.1.2 Related Programs for Industrial Training**

Bachelor programs that required Industrial training are as follows:

- i) Bachelor of Engineering (Mechanical) (SEMM)
- ii) Bachelor of Engineering (Naval Architecture and Offshore Engineering) (SEMO)
- iii) Bachelor of Engineering (Mechanical – Aeronautics) (SEMT)
- iv) Bachelor of Engineering (Mechanical - Automotive) (SEMV)
- v) Bachelor of Engineering (Mechanical - Materials) (SEMB)
- vi) Bachelor of Engineering (Mechanical - Manufacturing) (SEMP)
- vii) Bachelor of Engineering (Mechanical - Industrial) (SEMI)

Students will undergo training in Year Three in the short semester of their studies. To undertake this Industrial Training, students must pass the core courses (SEMM 2123, SEMM 2223, SEMM 2323, SEMM 2423, SEMM 2433, SEMO 2123) and obtained at least a total of 80 credits and minimum grade D- (30%).

### **2.0 GOALS OF INDUSTRIAL TRAINING**

The goals of Industrial Training are to enhance students' knowledge and skills to a career in their respective professions, as well as to produce graduates with professional, ethical, skilled, creative and competent.

### **3.0 OBJECTIVES**

Industrial Training objectives are :

- i) to expose students to the environment and working conditions in their respective fields
- ii) to gain working experiences in the organization/industry related field of study
- iii) to use the knowledge of the Industrial Training, which was followed at university
- iv) to train students to interact and communicate effectively at all levels in the workplace
- v) to train students to prepare technical reports related to the Industrial Training which conducted
- vi) to inspire a spirit of working as a team
- vii) to appreciate the ethical values of their profession

### **4.0 SCOPE AND TRAINING PROGRAM**

The scope of training to be passed by students in the company/organization includes various aspects such as :

- i) to observe organization's operations/factories/companies
- ii) to perform operations by making use of machinery and equipment
- iii) to work on the installation and fabrication

- iv) inspection and quality control
- v) to work on process control and instrumentation
- vi) to work on project design
- vii) maintenance and repair of machinery and equipment
- viii) installation of new equipment and testing
- ix) management and administration
- x) consultation

However, the scope and the actual training program depend on the type of companies/organizations involved. The program which only requires students to carry out production work alone is not sufficient and will not be ratified by the faculty.

The companies/organizations are requested to provide appropriate training to students who will work as an engineer/industrial designer after completing their studies.

Faculty supervisor will visit the company/organization monitor and discuss about student progress.

Company/organization's supervisor is requested to submit student's evaluation reports at week 12 of training, which is shortly after the end of Industrial Training.

## **5.0 RESPONSIBILITIES OF STUDENTS**

Students who carry out Industrial Training is responsible to complete all projects and tasks given by the organization within the specified time. Particularly, other student responsibilities are :

- i) to find a place and get information about jobs in the organization/industry to ratify by the Faculty's Industrial Training Committee
- ii) to inform officially to the organization if students want to withdraw from training attachment and a copy letter is send to the faculty
- iii) to attend a briefing/explanation on Industrial Training
- iv) to inform the Faculty's Industrial training committee immediately after start of training (use form BLP-01)
- v) to comply with all the organization's regulations
- vi) to comply with the Universities and University Colleges Act's
- vii) to ensure full attendance in the organization. The company/organization is encouraged not to give permission for students to leave during training except for emergencies or company's holiday. If students leave because of health (evidenced by medical certificate and not later than one week) the students do not need to replace the number of days off.
- viii) to perform all the duties and responsibilities assigned by the organization
- ix) to meet the scope of required training
- x) to keep the university's reputation
- xi) to cooperate with the organization all the time
- xii) to contact the Faculty's supervisor immediately if any problem's raised during the training
- xiii) to write notes in the log book, write final Industrial Training report and perform any other tasks given during the training
- xiv) to submit all training related documents to the Faculty's Industrial Training Committee
- xv) always be positive and contribute according to student ability
- xvi) to make good relationship with the organization for future jobs

## **6.0 NOTES AND STUDENT'S REPORT**

All students who undergo Industrial Training are required:

- i) to write the training program (after consultation with the supervisor of Industrial Training) and work/activities undertaken during their Industrial Training in the log book.
- ii) to prepare a comprehensive final report on training programs (not less than 50 pages) and the report must follow the UTM Thesis Writing Handbook's format.

## **7.0 LOG BOOK INSTRUCTION**

- i) To log all relevant industrial training activities in log book.
- ii) Log book to be handed in to company/organization supervisor upon training completion for endorsement.
- iii) Log book to be handed weekly to company/organization supervisor for assessment.
- iv) Log book to be shown to faculty supervisor during his/her industrial visit.
- v) Any misreporting in the log book will be dealt accordingly.
- vi) Log book to be handed in to the faculty not later than one (1) week upon the Industrial Training completion.

## **8.0 GUIDELINES FOR COMPLETING THE LOG BOOK**

### **8.1 Students Overall Industrial Training Activities Gantt Chart**

Overall training planning must be done prior to the commencement of Industrial Training. This chart must be completed after discussing with company/organization supervisor. This chart must be completed not later than two (2) days after reporting to the company/organization.

### **8.2 Table of Daily/Weekly Student Activity and Assessment Form by Company/Organization Supervisor**

These tables must be filled by student every week.

### **8.3 Assessment Form of Overall Student Activity by Faculty Supervisor**

This is the overall students activity assessment form to be filled by faculty supervisor

### **8.4 Table of Detailed Student Activity**

This table must be completed by students to report in details what have been summarised

## **9.0 ASSESSMENT OF TRAINING**

The performance of students during their Industrial training and personality development should be evaluated by both faculty's supervisor and industrial's supervisor. The assessment includes quality of work and student's personality. In overall Industrial's Training assessment includes:

- i) observations and reports from faculty's supervisor
- ii) observations and reports from the supervisor's of the company/organization

## **9.1 Observations and Reports From Faculty's Supervisors and Supervisor's of the Company/Organization**

### **9.1.1 Faculty's Supervisory Report [20%]**

The performance of students during their Industrial Training assessed by the faculty's supervisor is based on face-to-face interviews with the student and feedback from industrial's supervisor. BLP-02 form is used for the purpose of this assessment. Overall mark for this report is 20%. Evaluation of supervisor reports were made through interviews that includes:

- a) ability to describe clearly their training experiences. Capability to describe their adaptability with the company/organization.
- b) maturity answering questions. Ability to discuss problems with supervisors.

### **9.1.2 Industrial/Organization Supervisory Report [30%]**

Industrial supervisor is also asked to assess student's performance. The assessment of students including job performance, work and character building. BLP-03 is used (Appendix 3) for the purposes of this assessment. Overall mark for this report is 30%. Industrial's supervisors are required to provide an assessment of student performance which includes the two scopes as below:

- a) **Performance of work**
  - knowledge of work
  - the credit for completing work on time
  - the time taken to obtain job skills
  - the need for supervision
  - quality of work
- b) **Personality**
  - the ability to communicate
  - initiative and motivation
  - attitude towards work
  - discipline

## **9.2 Log Book [10%]**

Log Book is a student's diary. Through log book, the supervisor can understand the activities undertaken by students during their Industrial Training. Log book contains all the job experiences, discussions with supervisors, comments, data and information from the company/organization, and library's references. Overall score for the log book is 10%. The components evaluated from the logbook includes:

- i) tidiness of the log book (1%)
- ii) confirmation by the organization's supervisor (at least once a week) (1%)
- iii) description of equipment or systems to use and simple procedure (4%)
- iv) the detailed of content and student's learning experiences (3%)
- v) the learning experienced by students (1%)

The log book assessment is assessed by the faculty's supervisor.

### 9.3 Final Report [40%]

Apart from the log book, students are also required to prepare the final report. This report contains brief information about the background of the company/organization, the scope of training, the content of the training provided with detailed proposals to the company/organization and faculty and the conclusions. A copy of the final report should be sent to the company/organization if requested. Details of the final report's format is as follows:

- a) **Introduction (10%)**
  - introduction to the Industrial Training
  - objective of Industrial Training
  - scope of Industrial Training
  - summary of Industrial Training
  
- b) **Background of Industrial/Organizational (10%)**
  - company profile
  - organizational structure
  - information on the department/unit which involves for Industrial Training
  - flow chart of the industry/organization
  
- c) **Comprehensive Training Information (10%)**
  - description of the training was conducted in general
  - the experience gained
  
- d) **Project Information/Training in Specific (40%)**
  - the objective of the project/training is clearly presented
  - implementation of project-related training
  - results of project-related training
  - ability to analyze, problems solving and links all the information, procedures and projects related to the field of study
  
- e) **Conclusion (10%)**
  - the conclusion of the report
  - problems and recommendations
  - references
  
- f) **Writing Skills (10%)**
  - composition, sentence's structure and style
  - appropriated and clearly presented all the figures, tables, chart etc
  
- g) **Format of the Report (refer to UTM's Thesis Writing Guide) (10%)**
  - the composition and contents of the report
  - the size and format
  - references formatting

### 10.0 MARK WEIGHTAGE

The weighted score for the whole period of Industrial Training for 12 weeks is as follows:

- a. IT report - 40%
- b. Industry' supervisor assessment report – 30%
- c. Faculty supervisor assessment report - 20%
- d. Log book - 10%

### **10.1 Requirement of Pass Grade for IT**

- i) Passing mark is 60% out of the total mark with conditions:
  - a. the marks on industry supervisory report must be at least 15% (from 30% of total marks of industrial's supervisory report)
  - b. the total score for industrial's supervisory and faculty's supervisor report must be at least 25% (from both of the two supervisors)
  - c) Report must be submitted to faculty

### **10.2 Plagiarism**

Plagiarism is defined as the unauthorised use or close imitation of the language and thoughts of another author and the representation of them as one's own original work by not crediting the author.

Plagiarism are considered as follows:

- i) full copy of statement/sentences as one's own original statement. Statement must be rephrased by using own wording and make a citation of the sources.
- ii) adopted idea directly from the original references without citing the sources.

Plagiarism is a serious academic misconduct that may be subjected to action under the Disciplinary Rules of the University.

## **11.0 SUMMARY OF ACTIVITY AND ASSESSMENT FORMS**

- 11.1 Students activity planning
- 11.2 Students weekly activity and assessment forms by company/organization supervisor
- 11.3 Overall activity assessment form by faculty supervisor.
- 11.4 Students detailed activity

8.1 – STUDENTS OVERALL INDUSTRIAL TRAINING ACTIVITIES GANTT CHART

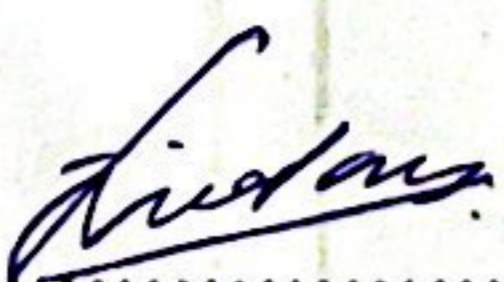
Place/Department	*Types of Training	Date : 25/7/22 Upto : 30/7/22 WEEK 1	Date : 1/8/22 Upto : 6/8/22 WEEK 2	Date : 8/8/22 Upto : 13/8/22 WEEK 3	Date : 15/8/22 Upto : 20/8/22 WEEK 4	Date : 22/8/22 Upto : 27/8/22 WEEK 5	Date : 29/8/22 Upto : 3/9/22 WEEK 6
<p>mechanical department (workshop)</p>	<ul style="list-style-type: none"> <li>mechanical works</li> <li>Electronic components knowledge.</li> <li>Handling several type of equipments</li> <li>operational observation</li> <li>working at site.</li> </ul>	<ul style="list-style-type: none"> <li>continuity test</li> <li>metal tapping process</li> <li>taping PCB</li> <li>pressing cylinder process</li> <li>screwing</li> <li>learn about water regulator</li> <li>learn about water heater pump.</li> <li>learn about air regulator</li> <li>learn about machine probe checker</li> <li>learn how to connect wire in the pin connector.</li> <li>learn how to insert the wire with pin connector into IDC connector.</li> <li>learn about solenoid valve</li> </ul>	<ul style="list-style-type: none"> <li>learn how to use PTFE tape</li> <li>learn about cutting machine</li> <li>learn about CNC machine</li> <li>taking dimension</li> <li>modification of vacuum of <del>vacuum</del> leak tester</li> <li>taking detail picture of vacuum vacuum leak tester</li> <li><del>do the tube</del> label printing</li> </ul>	<ul style="list-style-type: none"> <li>label the read switch</li> <li>screw banana connector</li> <li>cut and installed the wire case.</li> <li>installing bracket at probe</li> <li>organize tube</li> <li>inserting spiral tube</li> </ul>	<ul style="list-style-type: none"> <li>inserting wire cage case cover</li> <li>learn how to use sticker printer</li> <li>soldering wire</li> <li>do plastic wrapping</li> <li>prepare mg cap screw and spring washer</li> </ul>	<ul style="list-style-type: none"> <li>went to site Escalator, Febrax for site work</li> <li>do mechanical work</li> <li>organize new received probe in the probe box.</li> </ul>	<ul style="list-style-type: none"> <li>do the wire crimping</li> <li>soldering wire to connector</li> <li>assemble A assemble the <del>mechanical</del> mechanical structure</li> <li>installed switch button</li> <li>cleaning process</li> <li>learn how to <del>to</del> planning</li> </ul>


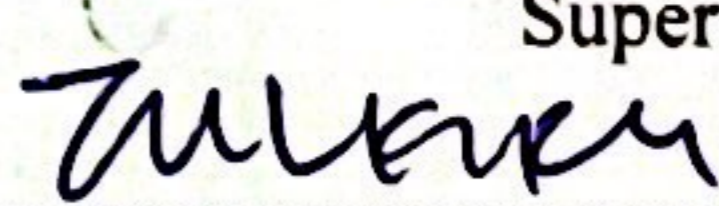
8.1 – STUDENTS OVERALL INDUSTRIAL TRAINING ACTIVITIES GANTT CHART

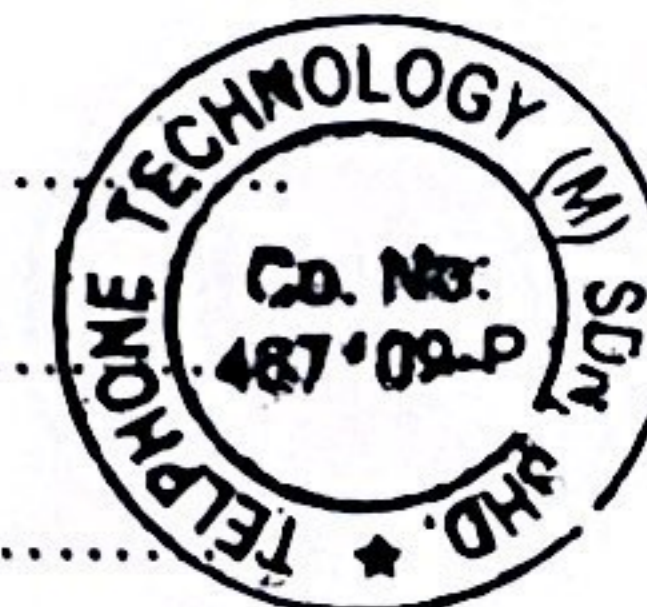
Place/Department	*Types of Training	Date : 5/9/22 Upto : 10/9/22	Date : 12/7/22 Upto : 17/7/22	Date : 17/7/22 Upto : 24/7/22	Date : 26/9/22 Upto : 1/10/22	Date : 3/10/22 Upto : 8/10/22	Date : 10/10/22 Upto : 14/10/22
		WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12
mechanical department (workshop)	<ul style="list-style-type: none"> <li>mechanical works</li> <li>Handling tools skills</li> <li>operational observation</li> <li>Electronic component knowledge</li> </ul>	<ul style="list-style-type: none"> <li>crimping wire</li> <li>knock the probe receptacle</li> <li>inserting probe</li> <li>wrapping probe using wire</li> </ul>	<ul style="list-style-type: none"> <li>soldering wire</li> <li>do wire crimping</li> <li>inserting shrink tube</li> <li>insert label tube through wire</li> </ul>	<ul style="list-style-type: none"> <li>soldering wire of customer's product.</li> <li>do wire crimping</li> </ul>	<ul style="list-style-type: none"> <li>do the wire crimping</li> <li>crimping wire</li> </ul>	<ul style="list-style-type: none"> <li>create hole slots</li> <li>check the wire connection</li> </ul>	<ul style="list-style-type: none"> <li>prepare network wire</li> </ul>

\* Types of training examples

- 1) Handling of equipment
- 2) Operational observation
- 3) Welding and assembling work
- 4) Collection and analyzing data
- 5) Report Writing

  
 .....  
 Student's signature  
 Date : 31/7/2022  
 .....

  
 .....  
 Supervisor's signature  
 Name :   
 .....  
 Post & stamp : .....  
 Date : 1 Aug 2022  
 .....



8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR

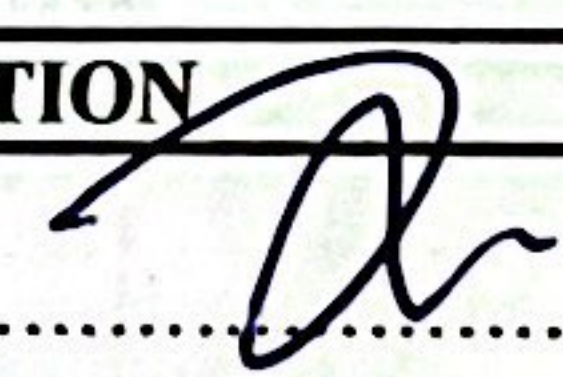
Date		Work Summary/Daily Activities	WORKING WEEK: 1
From	Upto		Duration Hours
25/7	30/7	<p>For the first 1st week, in the intern place, there are several kind of training has been undergone such as mechanical training, operational works observation and etc. There are also a few of mechanical components has been identified or involve in this kind of <del>intern</del> mechanical industries such as solenoid valve, air hydraulic system, water pump, air pump and etc.</p>	<p>8 hrs per day (Monday - Friday)</p> <p>6 hrs (Saturday)</p>

**Instruction to supervisor:**


Please refer to the student report in Table 8.4 before accessing and commenting. Please (✓) in the appropriate box.

1. Poor
2. Unsatisfactory
3. Satisfactory
4. Good
5. Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date :  1 Aug 2022

Name : MUKHAN

Post & stamp : 

1 2 3 4 5

Date : 1 Aug 2022

Comments:

.....

.....

.....

8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR

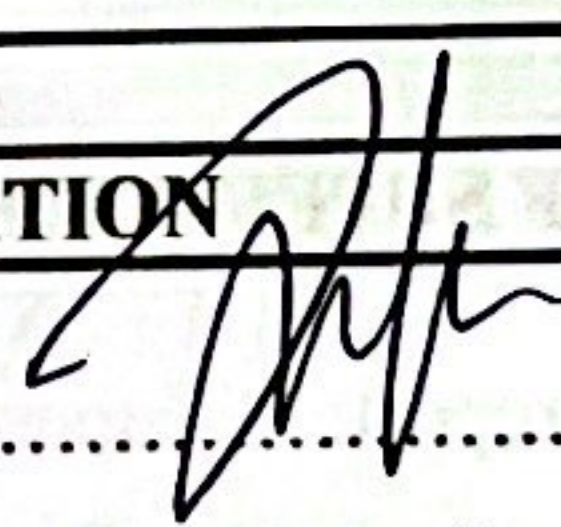
Date		Work Summary/Daily Activities	Duration Hours
From	Upto		
118	618	<p>In the 2nd week, it is mostly the mechanical work has been experience such as taking dimension, how to applied tools to conduct the activity or process by using correct tools and equipment.</p>	<p>8 hrs per day (Monday - Friday)  6 hrs (Saturday)</p>

**Instruction to supervisor:**

Please refer to the student report in Table 8.4 before accessing and commenting. Please (√) in the appropriate box.

1. Poor
2. Unsatisfactory
3. Satisfactory
4. Good
5. Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date : 

Name : **ZULKIPU BIN MUHAMMAD**

Post & stamp : **TELEPHONE TECHNOLOGY (M) SDN BHD**  
(Company No: 467100-P)  
1247, Jalan Sri Putri 3/4,  
Taman Putri Kulai,  
81000 Kulai, Johor.

Date : **13/10/2022**

Tel: 07-6633322 Fax: 07-6631323

1 2 3 4 5

Comments:

.....

.....

.....

8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR

Date		Work Summary/Daily Activities	Duration Hours
From	Upto		
8/18	13/18	<ul style="list-style-type: none"> <li>On the 3rd week, the company train to with the assemble work which is labelling, installing and etc for the water heater pump tester for customer.</li> </ul>	8 hrs per day (Monday - Friday)  6 hrs (Saturday)

**Instruction to supervisor:**

Please refer to the student report in Table 8.4 before accessing and commenting. Please (√) in the appropriate box.

1. Poor
2. Unsatisfactory
3. Satisfactory
4. Good
5. Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date : .....

Name : .....

Post & stamp : .....

Date : .....

1 2 3 4 5

TELPHONE TECHNOLOGY (M) SDN. BHD.  
 (Company No: 497100-P)  
 1247, Jalan Sri Putri 3/4,  
 Taman Putri Kulai,  
 81000 Kulai, Johor.  
 Tel: 07-6633322 Fax: 07-6631323

14/10/2022

Comments:

.....

.....

.....

8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR


Date		Work Summary/Daily Activities	Duration Hours
From	Upto		
15/18	2018	On the 4th week, the company trained how to do electrical and mechanical work such as soldering wire for electrical work and mechanical work such as installing wire cage.	8 hrs per day (Monday - Friday) 6 hrs (Saturday)

**Instruction to supervisor:**

Please refer to the student report in Table 8.4 before accessing and commenting. Please (√) in the appropriate box.

- Poor
- Unsatisfactory
- Satisfactory
- Good
- Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date : 

Name : Muhammad

Post & stamp : **TELEPHONE TECHNOLOGY (M) SDN. BHD.**  
 (Company No: 467100-P)  
 1247, Jalan Sri Putri 3/4,  
 Taman Putri Kulai,  
 81000 Kulai, Johor.  
 Tel: 07-6633322 Fax: 07-6621323

1 2 3 4 5

Date : 13/10/2022

Comments:

.....

.....

.....

8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR

8

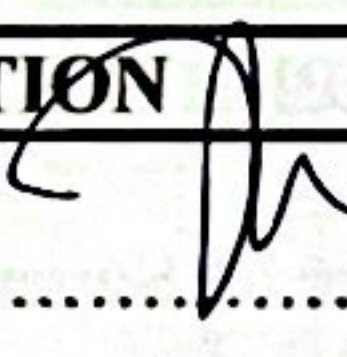
Date		Work Summary/Daily Activities	Duration Hours	
From	Upto			
22/18	27/18	<ul style="list-style-type: none"> <li>On the <del>4th</del> 5th week, went to Escalade, Tebrau for site work which is the installation of water heater pump tank. Supervisor assigned this task to go to <del>the</del> site work to gain knowledge about site work and environment.</li> </ul>	8 hrs per day (Monday - Friday)	6 hrs (Saturday)

**Instruction to supervisor:**


Please refer to the student report in Table 8.4 before accessing and commenting. Please (✓) in the appropriate box.

- Poor
- Unsatisfactory
- Satisfactory
- Good
- Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date : 

Name : MUKIM

Post & stamp : 

Date : 13/10/2022

1  2  3  4  5

Comments:

.....

.....

.....

8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR


Date		Work Summary/Daily Activities	Duration Hours
From	Upto		
29/8	31/8	<p>On 6th week, learn more on how to soldering the wire to connector and the <del>correct</del> technique to apply solder. crimping wire with pin connector also one of the step after soldering the wire.</p>	<p>8 hrs per day (Monday - Friday) 6 hrs (Saturday)</p>

**Instruction to supervisor:**

Please refer to the student report in Table 8.4 before accessing and commenting. Please (√) in the appropriate box.

1. Poor
2. Unsatisfactory
3. Satisfactory
4. Good
5. Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date : 

Name : MUKIPI

Post & stamp : **TELEPHONE TECHNOLOGY (M) SDN. BHD.**

(Company No: 487100-P)  
1247, Jalan Sri Putri 3/4,  
Taman Putri Kulai,  
81000 Kulai, Johor.  
Tel: 07-6633322 Fax: 07-6621323

1 2 3 4 5

Date : 13/10/2022

Comments:

.....

.....

.....

8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR

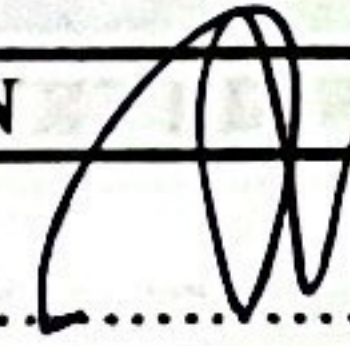
Date		Work Summary/Daily Activities	Duration Hours
From	Upto		
5/9	10/9	<ul style="list-style-type: none"> <li>On the 7th week, proceed and learn more about wire crimping and probe pins and probe receptacle in the electronic components.</li> </ul>	8 hrs per day (Monday - Friday) 6 hrs (Saturday)

**Instruction to supervisor:**

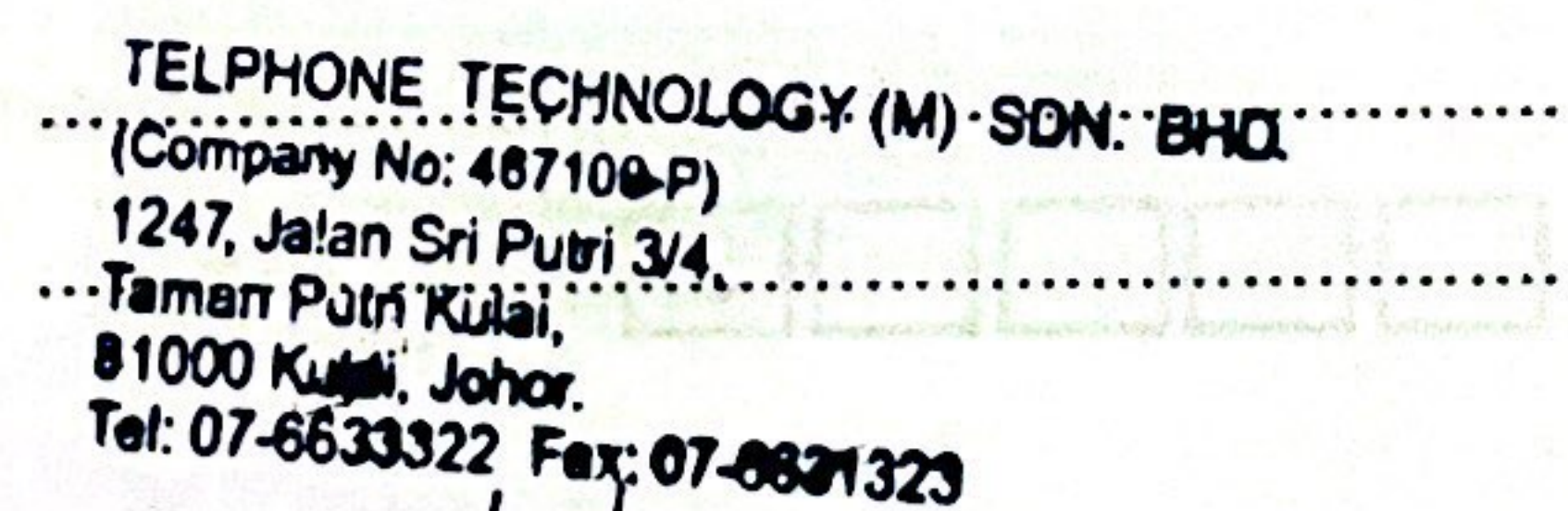
Please refer to the student report in Table 8.4 before accessing and commenting. Please (√) in the appropriate box.

- Poor
- Unsatisfactory
- Satisfactory
- Good
- Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date : 

Name : Zulkifli

Post & stamp : 

Date : 13/10/2022

1  2  3  4  5

Comments:

.....

.....

.....



8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR

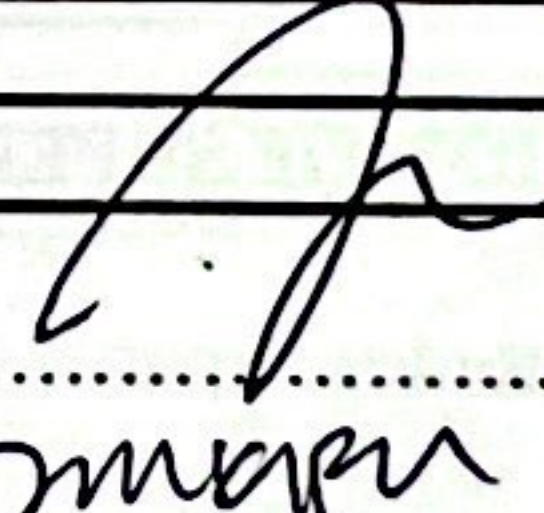
Date		Work Summary/Daily Activities	Duration Hours
From	Upto		
17/9	24/9	On the 9th week, do soldering and crimping wire with to polish all the techniques	8 hrs per day (Monday - Friday)  6 hrs (Saturday)

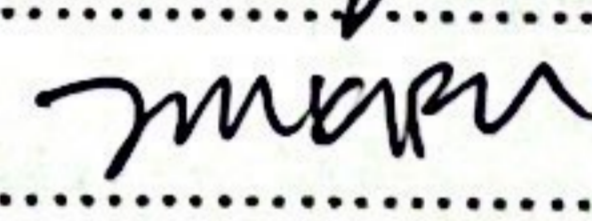
**Instruction to supervisor:**

Please refer to the student report in Table 8.4 before accessing and commenting. Please (√) in the appropriate box.

- Poor
- Unsatisfactory
- Satisfactory
- Good
- Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**


Work performance and student report: Supervisor's signature & date : 

Name : 

Post & stamp : **TELEPHONE TECHNOLOGY (M) SDN. BHD.**  
(Company No: 487106-P)  
1247, Jalan Sri Putri 3/4,  
Taman Putri Kulai,  
81000 Kulai, Johor.  
Tel: 07-8633322 Fax: 07-8631323

1 2 3 4 5

Date : 13/10/2022

Comments: 

8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR

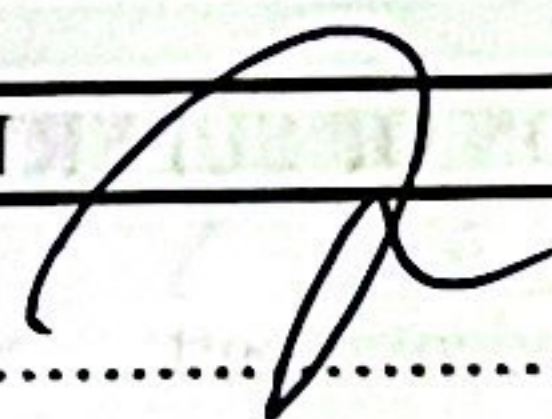
Date		Work Summary/Daily Activities	Duration Hours
From	Upto		
26/9	1/10	<ul style="list-style-type: none"> <li>On the 10th week, do soldering and wire crimping and to polish all the techniques.</li> </ul>	8 hrs per day (Monday - Friday)  6 hrs (Saturday)

**Instruction to supervisor:**

Please refer to the student report in Table 8.4 before accessing and commenting. Please (✓) in the appropriate box.

1. Poor
2. Unsatisfactory
3. Satisfactory
4. Good
5. Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date : 

Name : MURAH

Post & stamp : 

1 2 3 4 5

Date : 13/10/2022

TELEPHONE TECHNOLOGY (M) SDN BHD  
 (Company No: 487100-P)  
 1247, Jalan Sri Putri 3/4,  
 Taman Putri Kulai,  
 81000 Kulai, Johor.  
 Tel: 07-8633322 Fax: 07-8631323

Comments:

.....

.....

.....

8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR

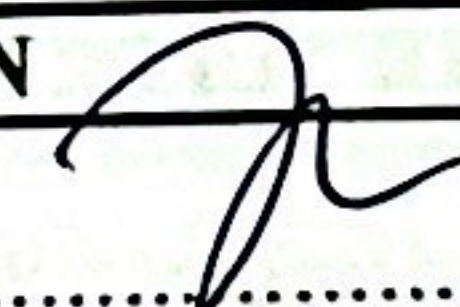
Date		Work Summary/Daily Activities	Duration Hours
From	Upto		
3/10	8/10	<ul style="list-style-type: none"> <li>on the 11th week, learn about the final steps before handing final product to customer.</li> </ul>	8 hrs per day (Monday - Friday)  6 hrs (Saturday)

**Instruction to supervisor:**

Please refer to the student report in Table 8.4 before accessing and commenting. Please (√) in the appropriate box.

1. Poor
2. Unsatisfactory
3. Satisfactory
4. Good
5. Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date : 

Name : MUKHLI

Post & stamp : **TELEPHONE TECHNOLOGY (M) SDN. BHD.**  
 (Company No: 487100-P)  
 1247, Jalan Sri Putri 3/4,  
 Taman Putri Kulai,  
 81000 Kulai, Johor.  
 Tel: 07-6533322 Fax: 07-6671323

Date : 13/10/2022

1  2  3  4  5

Comments: .....

.....

.....

8.2 - TABLE OF DAILY/WEEKLY STUDENT ACTIVITY AND ASSESSMENT FORM BY COMPANY/ORGANIZATION SUPERVISOR


Date		Work Summary/Daily Activities	Duration Hours
From	Upto		
10/10	14/10	<p>On the 12th week, learn about and prepare the network wire as requested by the customer.</p>	<p>8 hrs per day (Monday - Friday)</p> <p>6 hrs (Saturday)</p>

**Instruction to supervisor:**

Please refer to the student report in Table 8.4 before accessing and commenting. Please (✓) in the appropriate box.

1. Poor
2. Unsatisfactory
3. Satisfactory
4. Good
5. Excellent

**WEEKLY EVALUATION OF SUPERVISOR IN COMPANY/ORGANIZATION**

Work performance and student report: Supervisor's signature & date : 

Name : **MURPHY**

Post & stamp : **TELEPHONE TECHNOLOGY (M) SDN. BHD.**  
 (Company No: 487100-P)  
 1247, Jalan Sri Putri 3/4,  
 Taman Putri Kulai,  
 81000 Kulai, Johor.

Date : **13/10/2022**

1  2  3  4  5

Comments:

.....

.....

.....

**8.3 – ASSESSMENT FORM OF OVERALL STUDENT ACTIVITY BY FACULTY SUPERVISOR**

**FACULTY SUPERVISOR ASSESSMENT**

Instruction to supervisor:

Please read the log book and interview the student before assessing and commenting. Please (√) in the appropriate box.

- 1. Poor
- 2. Unsatisfactory
- 3. Satisfactory
- 4. Good
- 5. Excellent

Student report:

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

.....

.....

.....

.....

.....

.....

.....

.....

Supervisor's signature : .....

Name : .....

Date : .....

## 8.4 - TABLE OF DETAILED STUDENT ACTIVITY

### DETAILED REPORT

Work Week : 1 .....

Date : ~~31/7/2022~~ 31/7/2022 .....

Training Objectives (Activities Work at Department/Section :

mechanical works such as using all the mechanical equipments  
in the workshop.

To get familiar with all the mechanical equipments.

To know ~~what~~ <sup>what</sup> is the equipments or components that widely used  
in the company.

#### • continuity test

- continuity test is the presence of a complete path for current  
to flow and the test is performed by using multimeter. A continuity  
test is a ~~pre~~ <sup>quick</sup> check process to see if circuit is open or  
closed. ~~In the inter~~

During internship training, a continuity test is performed  
by using multimeter to Yokowo clip that clipped to the flat  
to ~~go~~ white wire to check if there are presence of short or not.

A flat white wire with 6 terminal is used in this continuity  
test. All the 6 terminal is check respectively with the  
middle 6 terminal on the Yokowo clip to check the presence  
of current path.

#### • Tapping process

- Tapping process is the process of cutting a thread inside a hole  
so that a cap screw or bolt can be threaded into the hole. It  
is also used to make thread on nuts. In this tapping process,  
hand drill is used with suitable and proper tapping lead refer  
to the screw's types and lead dimension. From the observation  
during intern, the tapping process usually done in the  
material that already had holes which is the material  
need to be drilled to create holes before the process of  
tapping started.

## DETAILED REPORT

### • Taping PCB

- Taping PCB process is the process of ~~tap~~ <sup>the PCB</sup> is taped with the high resistant tape (blue colored tape) to trace the location of the probes ~~on the~~ <sup>touch</sup> this process is conduct to check whether the ~~probes~~ <sup>touch</sup> is landed on right location on the PCB or missed landed in order to make sure any failure in the component can be avoided. This process also is to make sure any ~~unnecessary~~ <sup>unnecessary</sup> probes can be taken out rather than ~~leave it be~~ <sup>leave it be</sup> without any functionality.

### • Pressing cylinder hollow strike metal.

- Pressing cylinder is the process of pressing ~~cylinder~~ <sup>strike hollow</sup> cylinder metal ~~on~~ <sup>hollow strike</sup> in the hole on the pallet that will act as ~~locking~~ <sup>locking</sup> lock hole so that the locking system can be operate ~~during~~ <sup>locking</sup> ~~test~~ <sup>test</sup> when undergoe testing process. Oil is used for in the pressing ~~hollow~~ <sup>strike hollow</sup> cylinder metal process in order to make sure that ~~hollow cylinder~~ <sup>strike hollow cylinder</sup> metal ~~perfectly~~ <sup>perfectly</sup> fit in the hole by reducing its friction between the strike hollow cylinder metal with the pallet. There are some error or damage that encountered in this process which is the pallet slightly deform in the ~~press~~ <sup>pressed</sup> area due to the air is trapped in the hole ~~during~~ <sup>after</sup> the ~~hollow cylinder~~ <sup>strike hollow</sup> cylinder metal is pressed in.

## DETAILED REPORT

### • For Identifying 8mm tube

- Black silicone ~~tube~~ <sup>tube</sup> is used in the mechanical industry for many of purposes. The application of silicone tubes can depend on the sizes of the tubes. These tubes are ~~not~~ <sup>widely</sup> used as electrical sleeving due to its flexibility and their walls behaviour. It is used to ~~carry~~ <sup>carry</sup> liquids, air and powders which are popular with the pharmaceutical and food industries. In the workshop, ~~this tube~~ <sup>8mm black silicone</sup> tube is used to travel the air in the flow rate measured system. The ~~black~~ <sup>8mm</sup> black silicone tube is connected with the air regulator while transparent silicone tube is used through out the ~~system~~ flow rate system.

### • Screwing the pin PCB pin lock.

- PCB pin locks are installed on the metal plate to secure the PCB to keep in place. Philips screw is used in ~~this~~ <sup>for</sup> the pin lock PCB pin lock.

### • Learning ~~water regulator~~ <sup>about water regulator</sup>

- A water pressure regulator is a plumbing valve that reduce the water pressure coming from the main water line into the house. The function of this valve is to bring down the the pressure to a safe level before the water reaches any plumbing inside the house. This regulator has been installed on the water heater pump testing machine in the ~~work~~ <sup>work</sup> intern company. This water regulator is reducing the water pressure before the testing process is ~~conducted~~ <sup>conduct</sup>.

## DETAILED REPORT

- learn about the water heater pump machine
  - water heater pump machine is the machine that will test the water heater pump whether the output water temperature is equal with the initial set up temperature. This kind of ~~testing~~ machine is constructed and built in the workshop at this intern company which is requested by customer. There are several types of water heater pump involve ~~in this~~ that needs to be tested by this water heater pump machine obey the customer's request. This ~~machine~~ machine is built from scratch it become ~~testing~~ testing machine. Air ~~into~~ ~~until~~ ~~becoming~~ a water heater pump machine. Air hydraulic system is being applied in this testing machine which is to move the ~~pallet~~ mechanism that purposely grip or hold the ~~pallet~~ of ~~the~~ ~~water~~ during the water heater pump testing process. The framing structure of the machine is consist a alloy profile so that when it gets contact with water, the ~~an~~ aluminum oxides film will form quickly on the surface which protect the profile from rusting. Alloy is also less ductile compared to steel which makes it stronger and harder.

## DETAILED REPORT

- learn about air regulator
  - Air pressure regulators are designed to provide maximum flow capacity and maintain the outlet pressure at a set level. It consists of control spring that act on a diaphragm to ~~regulate~~ regulate the air pressure. This regulator also provides a constant outlet of pressure, separately from the inlet pressure or flow. This air pressure regulator is used in the flow rate measured system. The air needs to be regulated before it ~~the~~ <sup>the air</sup> is flow into the flow rate meter for measuring process.
- crimping pin connector process.
  - crimping process is joining 2 pieces of metal or other ductile material (usually a wire and a metal plate) by deforming one or both of them to hold the other. It is the best way or other alternative of attaching wire without ~~soldered~~ <sup>solder</sup> soldering it. The pin connector is used and ~~beak~~ <sup>being</sup> ~~err~~ <sup>being</sup> bring crimp to the wire before connect it ~~the~~ <sup>to</sup> to IDC connector. The crimped wire is inserted in the IDC connector till 'click' sound heard and in order to make the inserting process easier, tweezers is used. Other than make the process easier, it also for safety purpose which broken material can be avoid. because the material might be damage if ~~inserted~~ <sup>insert</sup> process is conduct in bare hand. The pin connector is insert according to the customer's requirement that stated in the check sheet.

## DETAILED REPORT

- learn about solenoid valve
  - A solenoid valve is an electrically controlled valve. This solenoid valve is an electric coil with a movable ferromagnetic core (plunger) in its center. ~~The~~ Solenoid valve is used in the water heater pump testing machine which is 2 ways solenoid valves. This solenoid valve <sup>size</sup> ~~is~~ <sup>with</sup> operates according to the computer program.
- Restock the screws.
  - All the screws need to be identified based on its type and dimension for example cap screw, countersunk screw and button head screw. ~~The screws~~ <sup>All the screws</sup> are in the screws rack organizer respectively to its type, size and dimension. All the screws need to be restocked for further use. After restocking process, the balance of the screw left in the stock need to be estimate to be written on the screw stock table list. 200 pieces of screw and below is consider less and ~~need~~ <sup>need</sup> to be written 'less' in the screw stock table list. If there is no ~~left~~ <sup>stock</sup> left of screw for a certain type of screw, 'N/A' need to be written in the screw ~~table~~ <sup>stock</sup> table list which stand for 'Not Available' for that screw type, so that it can be order for later on.

## DETAILED REPORT

- Learn how to use tube printer
  - PVC tube printer is the machine that able to print out desired or specific information on a PVC or silicone tube. The silicone / rubber tube is used to indicators or labelling the wire to avoid confusion during troubleshooting process or assembling process. It is removable and very convenience to use anywhere.
- Inserting O ring in the nozzle
  - Nozzle is a cylindrical or round spout at the end of a pipe, hose or tube used to control a jet, gas or liquid. Nozzle is used in the water heater pump testing machine which is to supply the water to the water heater channel pump inlet. In order to prevent any leakage happen during water heater pump testing process, O ring inserted in the nozzle. O ring can be called as packing or a torque joint that will act as mechanical gasket that purpose to block a path which may allow a liquid or gas to escape so that the result of the test will become non accurate.
- Aligned the pallet block
  - The pallet block need to be align to make sure the water heater pump fit loosely on the pallet before run for testing process in the water heater pump testing machine. It is also to avoid any mistakes during place the water heater pump on the pallet that will lead to broken water heater.

## DETAILED REPORT

- learn about mini lathe machine.

- A lathe is a tool that rotates the workpiece on its axis to ~~perform~~ <sup>perform</sup> various operations such as cutting, sanding, knurling, drilling or deformation, facing, turning with tools that are applied to the workpiece to create an object with ~~symmetry~~ <sup>symmetry</sup> about an axis of rotation. In top block ~~modification~~ <sup>modification</sup> process, top of the ~~modification~~ <sup>modification</sup>

The lathe machine is used to shape the top of the pallet block which is removing the unwanted part from. The outer part of the top pallet block can be set as it  $\odot$  zero as reference point before ~~start~~ <sup>reduce</sup> it 1mm from the initial diameter. ~~The block can be~~ <sup>The cutting process can be</sup> performed little by ~~little~~ <sup>little</sup> so that it achieve the desired length. This ~~steps~~ <sup>steps</sup> of ~~steps~~ <sup>steps</sup> technique is performed to get smooth surface.

- Insert and take out probe's receptacle

- Inserting probe's receptacle use hammer probe from the top of the components. The take out process is also use hammer probe and need to be knock it from the bottom of the components.

## DETAILED REPORT

- learn about using ~~handdrill~~  
hand drill

- ~~handdrill~~

hand drill is used for many purpose such as tapping process, drilling process and etc. hand drill also can

be use to screwing ~~for~~ purpose with correct setting to

avoid any damage happen at the screw's head or the

hand drill ~~bit~~ bit.  
~~beat~~

8.4 - TABLE OF DETAILED STUDENT ACTIVITY

DETAILED REPORT

Work Week : ..... 2 .....

Date : ..... 7/18/2022 .....

Training Objectives (Activities Work at Department/Section :

- Mechanical and electrical work such as digital caliper, PTFE tape.
- To ~~get~~ <sup>gain</sup> experience of using all the tools and equipment.
- To learn ~~about~~ <sup>how</sup> to get accurate measurement in design ~~process~~ <sup>process</sup>.

- Learn how to use PTFE tape
- PTFE is stand for polytetrafluoroethylene which is a synthetic of fluoropolymer of tetrafluoroethylene that has such a numerous application. PTFE has one that lowest coefficients of friction to any solid. PTFE also used for non-stick coating for pans and other kitchen ware. In ~~the company~~ <sup>this</sup> company, PTFE tape has been use for taping the L connector that use in the water heater pump testing machine. The L connector need to be tape approximately  $\frac{2}{3}$  to 3 layer to avoid any leakage of gas or liquid when in use. After the taping of L connector are done, the L connector can be assemble or attach to the pump valve by using correct size of spanner. In this case, by using adjustable switch spanner give advantage and makes the attaching process easier.

## DETAILED REPORT

- learn about cutting machine.

- In the company, profile alloy is mostly used for in  
structure frame structure of any tester machines. In order  
to construct the frame structure, the raw alloy  
profile need to be cut by certain dimension which all the  
profile alloy profile will be cut by using metal cutting  
machine. Thus cutting machine needs to be handle  
carefully to avoid any serious injury or accident. The profile  
can be any type such as alloy, aluminium and etc,  
the the cutting bit ~~need~~ to be oil or lubricate first  
before proceed to cutting process in order to get  
smooth surface and ~~edges~~ smooth cutting edges. It also to  
avoid any ~~damages~~ damage to the cutting machine bit which  
is blunt bit. In the making of water heater pump testing  
machine, alloy profiles are used for the body  
structure of the testing ~~mach~~ machine.

- learn about cnc machine

- CNC ~~or~~ milling ~~tools~~ machines are a machine that will operate  
cutting tools that are programmed and manage by  
computer numerical control (CNC) system that will  
accurately remove materials from a workpiece. The  
outcome of the machining process is specific part  
or product that is created using design software  
such as CAD software. The company ~~sent~~ sent some  
electrical part or raw material to engineering department  
for CNC machining process.

## DETAILED REPORT

### • taking dimension

- taking dimension of the top part of tester machine named AIP Blackart tester to change and modified the old profile to another size of profile. After the new dimension has been taken, the new alloy profile need to be cut into several ~~pieces~~ pieces follow by the taken dimension. ~~and all the extra~~ changing process can be ~~done~~ proceed ~~at~~ after the cutting process are done.

### • modification of vacuum leak tester

- The leak is distinguish connection by connection till the flow rate water shown approximately ~~zero~~ 0 L/min. The leak at tube connection is tested by using DPI meter. The vacuum leak tester need to be double check before sent to the customer to avoid any further mistakes such as inaccurate readings.

### • taking detail picture of vacuum leak tester.

- detail picture of vacuum leak tester ~~has been~~ <sup>are being</sup> taken at every angle for company used in the whole project by uploading all the images in the company's laptop.

## 8.4 - TABLE OF DETAILED STUDENT ACTIVITY

### DETAILED REPORT

Work Week : ..... 3 .....

Date : ..... 14/8/2022 .....

Training Objectives (Activities Work at Department/Section :

- To avoid any confusion during maintenance work.
- To get familiar with the electronic components.

#### • Label the reed switch

- Reed ~~switch~~ <sup>switch</sup> is an electrochemical switch that will operated by an applied magnetic field. Reed switch has been involve and used in the water heater pump tester. Labelling process has been done before installing the reed switches in the tester. The labelling process is used the tube that print by tube printer so that it will make the maintenance work easier and confusion can be avoid.

#### • ~~Label~~ Screwing Banana connector

- ~~Label~~ A Banana connector which is consist of Banana plug for male and banana socket for the female. Banana plug is purposely used for joining wires to the equipment. Before plug in banana ~~socket~~ <sup>connector</sup> to any electrical equipment, it ~~has~~ <sup>need</sup> to be prepared first. ~~not~~ the banana connector need to be screw with its screws to become banana connector because it did not come in ~~piece~~ <sup>piece</sup>.

## DETAILED REPORT

- cut and installed the wire case.
  - In the step of getting ~~done~~<sup>done</sup> of customer's order, the organizing process is compulsory to make sure the product in neat and tidy condition. The purpose of this process is for the future work become ~~easy~~<sup>easy</sup> and to avoid any confusion. Before handle the final product to customer, all the wires that has been wired in the product need to be keep in place and stayed. By cutting the correct dimension of wire case and install it, the <sup>objective</sup> objectives of this activity can be achieve. All the wires were put in the wire case that install on the alloy profile.

### • Installing bracket at profile

- The alloy bracket has been installed at the alloy profile frame structure for water heater pump tester. MS bolts, nuts and washer ~~are~~<sup>are</sup> used for attaching ~~process~~ the brackets and alloy profile. Before installing the brackets, MS bolts, nuts and washers need to be slotted ~~in~~ in the alloy profile's slots so that tighten process can be done after that. In mechanical engineering, a bracket is used for fixing one part to another part that is usually larger part.

• Organise tube

- This process is actually the same process step with the previous step which is installing the wire case on the water heater pump tester. This step can be classified as organisation process which is to make sure the final product in neat, tidy and clean form before handle it to customer. In the water heater pump tester, that are several type of tubing that used such as air tube and fluid tube. In order to achieve tidy and neat looks ~~water~~ <sup>to</sup> all the ~~tubing~~ <sup>tubes</sup> need to be organise by using cable tie and cable tie base sticker.

• Inserting spiral tube

- This is also can be classified as organisation process which is to make the final product to looks neat and tidy. All the ~~wire~~ <sup>red</sup> and black wires need to be spiral by sup spiral cord to assure that the tester in nice condition. Before spiral process, the wires need to be cable tie to make sure the wires keep in place. other than to assure the wires look ~~in~~ <sup>nicely organise</sup> it is also to ~~make sure wire~~ <sup>in</sup> purpose to protect the wire from snapping that will make the water heater pump tester hard to operate.

## 8.4 - TABLE OF DETAILED STUDENT ACTIVITY

### DETAILED REPORT

Work Week : ..... 4 .....

Date : ..... 21/8/2022 .....

Training Objectives (Activities Work at Department/Section :

- To get familiar and know how to do soldering activity.
- To gain more experience on mechanical work such as installing certain electronic part.

- Inserting wire case cover.

In the electrical engineering, wire case is a case which all the wires are put in the wire case to assure that the product looks neat, tidy and organised so that on future use, the wire are not ~~interrog~~ interrupt the product performance and makes the maintenance activity become ease. The wire case cover has been installed <sup>at</sup> ~~at~~ the water heater pump basket to make sure all the wires are organised and keep in place. The wire case cover need to be measure same as wire case before ~~at~~ it to make sure the cover is fit with the wire case. Any wrong dimension of <sup>case</sup> ~~case~~ <sup>wire</sup> cover are not with <sup>be</sup> ~~be~~ <sup>make</sup> the wire case cover cannot fit ~~the~~ into the wire case.

## DETAILED REPORT

- learn how to use sticker printer
  - the labelling process is important in the electrical engineering to annotate or give information for the customer if there are any failure or where use either ~~tab~~ <sup>wire</sup> labelling or component labelling. ~~the~~ The labelling process are crucial which is any wrong label will lead to malfunction of the product. The company has trained how to use the sticker printer for labelling process. there are several width of sticker that involved in this labelling process such as 6mm, 9mm, 16mm, 18mm and there are several <sup>colour</sup> color of sticker are provided in this company. In this ~~good~~ labelling process, 9mm width of stickers in white colour has been used respectively to the ~~customer's~~ <sup>customer's</sup> request.
- soldering wire
  - soldering wire activity has been trained in this company. There are several ~~component~~ <sup>electrical</sup> component need to be ~~attached~~ <sup>attach</sup> by using soldering method. ~~The~~ wire has been soldered by using solder and solder lead and there ~~are~~ <sup>is</sup> specific technique of solder need to be follow to assure the high quality of solder that will affect the ~~good~~ <sup>performance</sup> performance of the product.

## DETAILED REPORT

1 In this company, all the soldering work had been performed manually by the workers. There is ~~not~~ any solder machine that runs automatically in the this company.

• Do plastic wrapping

- Every small final product need to be wrapped with plastic wrapper before send to customer in order to protect the product from any scratch and dent.

• Prepare M6 cap screw and spring washer.

- Find and prepare 100 pieces of M6 spring washer and 50 ~~pieces~~ pieces of cap screw according to the ~~SAE~~ list that assigned by the supervisor for site work use. All the ~~the~~ items need to be put in the ~~zip lock~~ plastic bag zip lock in order to make sure all the items is not missed.

8.4 - TABLE OF DETAILED STUDENT ACTIVITY

DETAILED REPORT

Work Week : 5

Date : 28 / 8 / 2022

Training Objectives (Activities Work at Department/Section :

- to be exposed to site work environment.
- to assist work with company worker do the mechanical work at Escalator site.

• went to Escalator, rebravo for site work

- Supervisor has assigned to support the other worker for site work of that involved with mechanical job scope. ~~went~~ stay went to Escalator, rebravo for few days for water heater pump tester installation. There are ~~few~~ <sup>^</sup> few issues found during the installation process which are the fussy customer which is drastically change plan or change the original plan by defying all the original plan in term of wiring and design. In order to obey all the customer's requirements, the wire circuit need to be rewrite multiple times to get all things done. Some goes with the ~~robot~~ <sup>^</sup> mechanical part, the tubes, valves, stopper and etc need to be change or send for modification multiple times before all the things done.

## DETAILED REPORT

- Organise new probes in the <sup>probe's</sup> probe box.
  - All the new probes that ordered by the supervisor <sup>at</sup> already arrive and need to be sort out or classified in the probe box. The probes has been <sup>establish</sup> classified or sorting out respectively to its name, type and model in order to make everything is easy to find for future use.

8.4 - TABLE OF DETAILED STUDENT ACTIVITY

DETAILED REPORT

Work Week : ..... 6 .....

Date : ..... 4/9/2022 .....

Training Objectives (Activities Work at Department/Section :

- To know how to solder the wire with correct techniques.
- To know how to crimp the wire with pin connector.

- To do the wire crimping
  - pin connector has been crimped by the ~~wire~~<sup>crimper</sup> crimper in order to connect with 2 ways and 4 ways black connector. 10 sets of product named "Autoline Bottom Block" has been crimped with wire pin connector crimper. 2 ways and 4 ways of black connector has been used in this product that requested by the customer. All the wires need to be crimp first before insert it on the 2 ways and 4 ways black connector: ~~after wire~~
- Soldering wire to connector.
  - In order to attach the wire with the components, soldering method is used in order to allow ~~steady~~<sup>flow</sup> electricity
  - from the wire ~~to the~~ through the joint section to the components.

## DETAILED REPORT

- Assemble the mechanical structure
  - The mechanical frame structure has been assembled before sent for site work which is installation process. There are some modifications regarding the design of ~~frame str~~ <sup>that</sup> frame structure. By following the latest design and dimension that has been drawn in the design software by the supervisor, the frame structure is undergone the re-assemble and assemble process which are several components are assemble into one whole structure.
- Installed ~~switched~~ <sup>switch</sup> buttons
  - Switch buttons are installed on the plate and multi axis CNC controller and digital counter meter. This product named "Trampo Tester" that ordered from ~~other~~ by the customer. Multi-axis computer numerical control (CNC) machining which is employs advanced machining equipment and tooling that accommodates motion in four or more direction to facilitate the manufacture of precision parts with complex geometries and digital counter meter is ~~is~~ mainly used for ~~measures~~ <sup>measuring</sup> the ac power of various physical instruments and this meter can display the measured ac voltage, dc current and output power.

## 8.4 - TABLE OF DETAILED STUDENT ACTIVITY

### DETAILED REPORT

Work Week : ..... 7 .....

Date : ..... 11/17/2022 .....

Training Objectives (Activities Work at Department/Section :

- To learn more about wire crimping
- To know how to insert and take out probe pin and receptacle.

- Crimping wire
  - Do the wire crimping by using pin connector for 10 sets of test the product named "side block airline PMI voyager". After the wire crimped, the wire inserted in the 3 ways block connector and 4 ways connector as requested by customer. These 10 sets of wire consume 2-3 days to complete before handing it to customer deliver.

- Knock the probe receptacle
  - knock the pin probe receptacle in the block as requested by customer by using probe hammer and probe inserter. The receptacle need to be knock follow certain space and dimension in order to avoid any malfunction during operation day. There are specific depth dimension of the probe receptacle need to be knock in the block. The probe receptacle is purposely use as pin probe housing in the electronic component.

## DETAILED REPORT

### • Inserting pin probe

- After the ~~knocking~~, knocking process are done, <sup>acceptable</sup>

inserting pin probe ~~can be pro~~ can be proceed <sup>process</sup>

by inserting the pin probes into the all knocked probe receptacle follow correct type, kind and size dimension that assigned by supervisor in the company.

### • Wrapping probe using wire

- Wire wrapping has been used in the previous product as requested by customer. After inserting probe process is done, wire wrapping need to be ~~wrap~~ <sup>wrap</sup> at the probe's body. All the pin probes need to be wrap by the wrapping wire. 28 AWG of wrapping wire has been used for wrapping probes purpose ~~in~~ in this ~~pro~~ model.

## 8.4 - TABLE OF DETAILED STUDENT ACTIVITY

### DETAILED REPORT

Work Week : ..... 8 .....

Date : ..... 18/7/2022 .....

Training Objectives (Activities Work at Department/Section :

- To get used and makes all the soldering skills and techniques are right
- To get expert in the wire crimping process.

- Soldering, wire

- soldering wires of customer product named "Autoline Bottom Block" for 10 sets of block that takes takes several days to complete it. ~~to~~ <sup>Learn</sup> to reduce the mistakes during soldering process day by day.

- Do wire crimping

- After the soldering are done, next process can be proceed which is wire crimping process for 10 sets of product named "Autoline Bottom Block" using crimping. After all the pin connector has been crimped to all wires, it can be inserted in the 2 ways and 4 ways block connector which is requested by the customer.

## DETAILED REPORT

### • Inserting shrink tube.

- when the crimping process are done, the next process can be performed which is inserting shrink tube. The shrink tube need to be insert to every wire in order to protect the solder part from ~~crapping~~ <sup>snapping</sup> snap during operation. It is also to protect the wire from being exposed to water. The shrink tube need to be blow with heat blower to shrink the tube and the shrink tube need to assure that the tube is fully shrink. to avoid any ~~with~~ electronic malfunction ahead.

### • Insert label tube through wire

- after the shrinking tube is done, the label tube need to be insert through wire follow all the customer's requirements. This labelling is crucial which is any mistakes can lead to wrong readings and results during operation day. It's also purposely to avoid any confusion during maintenance activity in future.

## 8.4 - TABLE OF DETAILED STUDENT ACTIVITY

### DETAILED REPORT

Work Week : 9

Date : 25/7/2022

Training Objectives (Activities Work at Department/Section :

• To polish the skills of soldering wire

• To polish the skills of wire crimping

• soldering wires of customer's product named "Autolane Bottom Block" for 10 sets of block that tooks several days to complete it. Learn to reduce the mistakes during soldering process day by day by improving the skills.

• 00 wire crimping

- After soldering process are done, next process can be proceed which is wire crimping process for 10 sets of product named "Autolane Bottom Block" using crimpier. After all the pin connectors has been crimped to all wires, it can be inserted in the 2 ways and 4 ways block connector which is requested by the customer.

8.4 - TABLE OF DETAILED STUDENT ACTIVITY

DETAILED REPORT

Work Week : 10

Date : 2/10/2022

Training Objectives (Activities Work at Department/Section :

- To polish the skills of soldering
- To polish the skills of wire crimping.

- Do the wire crimping
  - Do the wire crimping for 11 sets of product named "50p Block manual line". Every block got 2 sections which are can 1 and can 2.

- crimping wire
  - Do the wire crimping for several sets of wire that requested by customer. The previous noted that the wrapping wire is made the worth unstable. It makes customer want to change the wire wrapping to 24 AWG stranded wire to achieve stable reading.

## 8.4 - TABLE OF DETAILED STUDENT ACTIVITY

### DETAILED REPORT

Work Week: .....

Date: 9/11/2022

Training Objectives (Activities Work at Department/Section):

- To learn how to packing final product
- To know the final step ~~before~~ process before packing.

- create a hole slot
  - create a hole slot for the 20 sets of bottom block manual line on the styrofoam in order to pack and will be handle it to customer. It's for safety purpose so that it won't scatter during delivery time.

- check the wire connection
  - 20 sets of bottom block manual line that has been wire soldered with 2 two strings of wire for each block. Before packing process, all the ~~connection in order to~~ the connection in wires need to be check order to avoid any product malfunction.

## 8.4 - TABLE OF DETAILED STUDENT ACTIVITY

### DETAILED REPORT

Work Week: 12

Date: 14 / 10 / 2022

Training Objectives (Activities Work at Department/Section):

- To learn how to prepare ~~connection~~ network wire.

• prepare network wire  
- prepare network wire as requested by customer like 10 sets of 0.5m yellow color, 7 feet yellow color and 10 sets of 7 feet white color. The first step of preparing this wire is wire need to be cut into 10 sets of wire for every customer's request. wire needed to be cut the outer layer so that the core of wire exposed. Thus there are few colors in the wire which are:

1. white with orange stripes
2. orange
3. white with green stripes
4. Blue
5. white with blue stripes
6. green
7. white with brown stripes
8. Brown

DETAILED REPORT

The color need to be slotted in the network  
connector follows the correct order as above.