



اَوْنَبُوْرَ سَيِّدِيْ تِيْكَوْلُوْمُوْلِيْ وَابَاْرَا
UNIVERSITI
TEKNOLOGI
MARA

**FACULTY OF ELECTRICAL ENGINEERING (EE242)
TECHNOLOGY ENTREPRENEURSHIP (ENT600)**

COMPANY NAME:

DINS EZ SDN BHD

NEW PRODUCT DEVELOPMENT (NPD):

CONVENIENT THERMOS (CT)

GROUP: EE2428C

SESSION: March-July 2019

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SUBMISSION DATE: 13 MAY 2019

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1.1 EXECUTIVE SUMMARY

- DINS EZ Sdn. Bhd. is a company form by four members and planning to develop Convenient Thermos (CT).
- This product is idealized from personal experience and existing product in market.
- CT is a plugless thermos that can reheat user's drink to meet desired water temperature which is 40°C.
- It also can reheat the drink more than 100 times depends on the capacity of power bank.
- There are four unique features of CT:
 - (i) USB port: As an alternative to replace electric socket
 - (ii) Switch: To turn On or Off the thermos heater
 - (iii) Alarm: Alert user when the drink meets desired water temperature which is 40°C.
 - (iv) Liquid Cristal Display (LCD): Display temperature of drink
 - (v) Power bank: 5V output of power bank can supply power to thermos
- Below shows the list of objectives of this product:
 - a) To help employee reduce expenses by bring hot or warm drink water from home.
 - b) To maintain temperature of user drink more than two hours
 - c) To reheat the drink when it's temperature below than 30°C

2.1 INTRODUCTION

Thermos are one of product that suitable and conducive for all generations. It is used to prevent heat loss and keep the warmness of the drink for a certain time. The innovation of this product is aiming two types of users which is employee and household. Function of this innovated thermos is to help employee reduce expenses and reheat the drink when it gets cold.

1.1 Problem statement/Issues

Below shows the problem statement to initiate the idea of this project:

- (1) Employee barely bring hot or warm drink from home to workplace because it is easily got cold.
- (2) Normal thermos only can maintain drink warmness less than two hours.
- (3) Standard thermos sold at market cannot re-heat the drink.

1.2 Objectives

The aim of this project is listed below:

- (a) To help employee reduce expenses by bring hot or warm drink water from home.
- (b) To maintain temperature of user drink more than two hours
- (c) To reheat the drink when it's temperature below than 30°C

1.3 Methodology

During completing this project, students need to consider few research parameters which listed below:

(i) Who

Staff and students of Faculty of Electrical Engineering UiTM Shah Alam

(ii) Where

Faculty of Electrical Engineering UiTM Shah Alam

(iii) When

During office hours Monday to Friday

(iv) How

Online survey and face to face interview

1.4 Limitation

(i) Sample size of respondent

The number of sample size for online survey and face to face interview is limited to 23 number of respondents only

(ii) Sample profile

Survey and interview were conducted among Faculty of Electrical Engineering staff and student.

2.0 NEW PRODUCT DEVELOPMENT

2.1 Definition

Convenient thermos is plugging less thermos that reheat water more than 100 times. The plug less thermos means reheat by USB port using power bank. The weight and height for this convenient thermos is not too heavy and friendly user. This product had improvement in features compared to thermos out there. This product has several features which is easy switch for user, alarm for maximum temperature reminder and small LCD to make sure user read the temperature of the water.

2.2 Classification of NPD

The classification of this product can be classified as an improvement of an existing product. The existing thermos latest innovation is only with reheat using plug adapter. Introducing a product with this extras feature will help people solve their problem is an important factor of creating new product line. In addition, people need a new technological product that can suits with their daily routine life.