



UNIVERSITI  
TEKNOLOGI MARA  
MALAYSIA

## AUTOMATIC TABLE WIPER

**Faculty** : APPLIED SCIENCE

**Program** : FOOD SCIENCE AND TECHNOLOGY

**Program Code** : AS246

**Course** : TECHNOLOGY ENTREPRENEURSHIP

**Course Code** : ENT 600

**Semester** : 4

**Group Name** : KIREINA

**Group Members** :

1. FATIN AQILA BINTI MASLAH  
(2016596159)
2. NUR AINA ATIQA BINTI  
HASBULLAH (2016329087)
3. NADHIRAH HANI BINTI SHAMSUL  
BAHRI (2016595919)

**Submitted to**

**PUAN HAJJAH ZANARIAH BINTI ZAINAL ABIDIN**

**Submission Date**

**20 November 2017**

# TABLE OF CONTENTS

Contents	Page Number
<b>1.0 EXECUTIVE SUMMARY</b>	1
<b>2.0 INTRODUCTION</b>	1
<b>3.0 NEW PRODUCT DEVELOPMENT</b>	2
3.1 Definition	2
3.2 Classification of NPD	2
3.3 New Product Development Process	2
3.3.1 Research & Development	2
• Idea generation	
• Idea Screening	
• Market Survey	
• <del>Consumer Trend Canvas (CTC)</del>	
3.3.2 Product Design/Features	3
3.3.3 Concept Testing	5
3.3.4 Build Prototype (2D or 3D)	5
3.3.5 Test Marketing	5
<b>4.0 CONCLUSION</b>	5

## **1.0 EXECUTIVE SUMMARY**

Automatic table wiper is an innovation device where it can replace the used of rag to clean the table hygienically without having workers to do so. The idea for the innovation of this device came from the reading of customer's complaint about the hygiene condition of some restaurant and also experiences from the team when having a meal at a restaurant. The device is convenience and customer friendly. This is because the device able to clean the table without having the workers to do so especially at the restaurant where there are lot of customer to handle. The device also can be design to be fitted to the table at restaurant as different restaurant used different shape and design of their tables. It is said to be customer friendly because everyone can handle the device either customers or even the workers. This device will be tested at restaurant in Shah Alam (Seksyen 7) for two months for trial.

## **2.0 INTRODUCTION**

### **Problem statement:**

Cross contamination can occurs when harmful bacteria or allergens spread to food from other food, surfaces, hands or equipment (State Government of Victoria, 2009). The consequence from this is food poisoning, which caused from eating contaminated food. This cross contamination can occur at restaurant when the workers use dirty rag to clean the tables and also when the workers did not wash their hand properly and continue to clean the tables by using the rag. Dirty hand could cause cross contamination to the rag followed by the table.

### **Methodology:**

The idea to innovate the device is generated based on the reading about complaint regarding the cleanliness of some restaurant from blog and media social. In addition, the team also experience the same situation as in problem statement.

### **Limitations:**

Cross contamination can be resulted from the direct contact of raw food with processed food, filthy surface area with food and dirty hand with food.

## **3.0 NEW PRODUCT DEVELOPMENT**

### **3.1 Definition:**

The team plan to develop a device that is able to clean the table at the restaurant automatically, hygienically and efficiently.

### **3.2 Classification of NPD:**

This product is classified as new to the world product because the product does not exist yet and creates an entirely new market.

### **3.3 New Product Development Process:**

#### **3.3.1 Research and Development**

- **Idea generation:** The idea is generated from the customers of restaurant that complaint about his/her dissatisfaction about the hygienic condition of the table at restaurant. The team had read this problem from blog and media social.
- **Idea screening:** The problem will be solved by the innovation of a portable device that able to clean the table without having a waiter to do so.
- **Market survey:** Target for the market survey of our innovation is at restaurant especially the restaurants where they have become people's attention. The method of survey that the team had done is by asking the owner and waiter how convenience this product is.

### 3.3.2 Product Design

