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## NEW PRODUCT DEVELOPMENT

### HIGH-TECH KNIFE

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## 1. EXECUTIVE SUMMARY

This project is assigned to us to make the promotional plan for a new product development which are not yet launch in the market. Our product is a development from a normal knife to a high technology knife. The development is inspired by the scenario of a housewife that having some problems on using a knife for cutting job.

## 2. INTRODUCTION

In this project, our team has decided to develop technological innovations based on extensive product which tends to provide a number of advantages for our users at the current time. High-Tech Knife is a development of a normal knife which has several function adapted in one knife.

### 2.1 Problem Statement/Issues

The issues that associated with knife is stated as following:

- Not use the right knife for the right job - It is a common knowledge that different cutting need different type of knife. As this is hustle to many, knife users tend not to use the right knife.
- Reshaping problems or not keeping knife sharp enough – knife needs sharpening before being used again on food preparation and it is something you should consider doing on a regular basis with any kitchen knife you are using.
- Not holding the knife properly during cutting - (the grip should not cause hand fatigue) poor designed knives can lead to repetitive strain injuries and muscle fatigue.
- Not stored the knife protected – In the kitchen, there are a lot of utensils that could be dangerous to work with if you are careful and knives are definitely on the first place in this top. You have to make sure that you store your kitchen knives safely to avoid accidents and also so that your children do not reach them.

## **2.2 Methodology**

The data was collected by talking to five family members who cook daily. The team also gathered the data by distributing questionnaires to five friends who does cooking. The questioners were given as in the Appendix 1. Analysis on the questionnaire had been made and are shown in the appendix. The result shows that 80% responders use only one knife for all their cutting jobs. Therefore, the team is introducing the high tech knife to facilitate the cutting jobs. The details of the result are represented in appendix.

## **2.3 Limitations**

As the product is proposed, the study shows some limitations of the product as following.

- Professional knife user such as chef and butcher no not preferred to use one knife.
- Not all people afford to buy high tech knife.

## **3. NEW PRODUCT DEVELOPMENT**

### **3.1 Definition**

High-Tech Knife are design to help people perform a very common task in the kitchen, but it's been packed with a high technology features. This knife is very unit because it has an enabled sensor tip. The generous surface area of the cutting-edge chopper provides ample space for a touchscreen interface. It can detect or test food nutrition, bacterial levels, freshness and toxicity. The touch screen interface also show cooking recipes that. Not only limit on that, it also comes with a clock and timer to allow users to estimate the time of cook.

This knife is also equipped with cutting mode. Users do not have to change the knife every time they cut out different food types. This is because the cutting mode allows the user

to choose the type of mode they want and they did not to worry about the resharpening the knife because it use heat or thermal technology to cut.

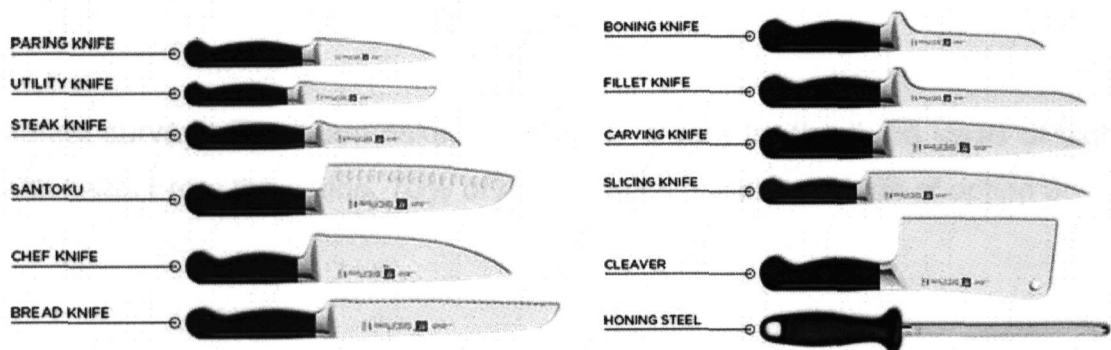
Besides, when the knife is not in use, it can be safely locked in the knife block that also functions as a charger. This can prevent accidents in the kitchen going on.

### 3.2 New Product Development Process

#### 3.2.1 Research & Development

The product is still at pre R&D stage. The team is now researching the concept product of high-tech knife as a proposal of the blueprint. The blueprint are prepared to apply for a grant to produce the prototypes.

There is no competing product in the market. All knives in the market now are common knife as shown below.



The team got the ideas from the observation and experience of cooking in a small restaurant. From the observation, knife user mostly used only one knife for all types of cutting job. They tend to have difficulties in choosing knife. They prefer to use one knife to save the time. Thus, the team generate the ideas for the knife to be a multi-function knife.

Idea Screening – three ideas for the high-tech knife are proposed as below.