

**NEW PRODUCT DEVELOPMENT PROJECT****SMART TUMBLER**

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## 1.0. EXECUTIVE SUMMARY

A newly product developed based on generated ideas and concerns to those in needs of change in the normal product. This product is the results for those who need to stay hydrated other than creating awareness of the importance of hydration status. The targeted population was those of athlete and the general population around the world. The specifications of this product are slender and long bottle, special alarm as a reminder to drink and as location detection, safety locked and available in many colors. Based on the variables of questionnaires and survey done, this new product was generated through those demands.

## 2.0. INTRODUCTION

### 2.1. PROBLEM STATEMENTS/ ISSUES

Drink water on a daily is good for health where it can prevent from dehydration, result in mood change, cause body to overheat, constipation and kidney stones. According to the statistics, 75% of American are dehydrated and average only 2.5 cups of water drink by American daily. Thus, bring water-bottle everywhere is important to everyone since the weather nowadays is hot and sunny. Variety of water bottle can be found in market according to our preference like color, shape, materials and others.

Drinking enough water can make ourselves become hydrate. In athletes, proper hydration during training or competition can enhance performance, avoid ensuring thermal stress, maintain plasma volume, delay fatigue and prevent injuries with dehydration and sweat loss. Therefore, rehydrate and replace fluids that have been lost during exercise is recommended to all individuals who exercise or train (Von Duvillard, Braun, Markofski, Beneke, & Leithäuser, 2004).

Next, there are always some people who forgot where they put their water bottle since there is no application to detect the water bottle and some people forget to drink the water even they bring the water bottle together. Thus, new product development for water bottle is important to fulfill people desire for a bottle while can stay hydrated.

## **2.2.METHODOLOGY**

The data was collected a weeks ago (19/11/2018) among students in UiTM Puncak Alam. Question was given to the students through an application named Whatsapp to know the market survey. From this, we can know whether they agree or not for us to produce new development of water bottle that are more advanced and can fulfill their desire of water bottle through the features given. Nevertheless, there are some limitation conducting this survey where the period of time were limited and the sample size was small as it focusing on students UiTM Puncak Alam only and not involve other universities. Then, lacks of cooperation were found during collecting this survey where some of them do not have interest to vote through Whatsapp.

## **3.0. TECHNOLOGY DESCRIPTION**

The newly smart water bottle created to not just to satisfy the thirst but also to stay hydrated. The design of this bottle is also suitable for athletes as it is light weight and may be carried easily. It is also provided with safety cautions such as safety - locked. Also, good news for those who had always missed their things, this smart water bottle is completed with detector which linked to mobile phone and smart watches.

It is reusable water bottle and the special feature of this water bottle is, it has antibacterial addition inside it. This water bottle is useful for them who tend to forget to drink water and at the same time they may feel safer to drink the water as it contain antibacterial agent. This water bottle may help to keep on track the water consumption and also give alert to them to drink more water.

## **4.0. NEW PRODUCT DEVELOPMENT**

### **4.1.DEFINITION**

A smart water bottle that were improvised and design to track one's water intake and best in alerting and hit their daily hydration goals. This definition was suitable to the goals of hydration status and the demands of the people who need a specification to a water bottle.

### **4.2.CLASSIFICATION OF NPD**

This smart water bottle is still under pre-development and from a improvisation of the another bottle that used the same idea but still did not fulfill the demands. This product development was suggested due to problem of lack hydration that occurs among athletes and also adult that may contribute to other disease. Therefore, this smart bottle was design specifically for athletes but also may be used by adult to ensure enough water consumption according the requirements. Other than that, this smart water bottle also consists of new technology such as alarm detector. Next, new development of smart water bottle is increasing over time but any other special features of this water bottle is, it provide the safety-locked that may help for safety cautions. For example when the bottle is filled with hot water, obviously no one would want a hot leakage onto the skins. Then, this product also is added with antibacterial agent that help to lower the percentage of bacteria and make the water safer to be drink.