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UNIVERSITI  
TEKNOLOGI  
MARA

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**TECHNOLOGY ENTERPRENUESHIP**  
**(ENT600)**

**PRODUCT BLUE PRINT:**  
**COOLING UMBRELLA**

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# CHAPTER 1

## 1.0 PRODUCT DESCRIPTION

### 1.1 Introduction

After initial observation towards the existing basic umbrella, the team had chosen a product that we believe can contribute to the Asian country especially Malaysian community. Our product is Cooling Umbrella. Nowadays, Malaysia weather is hot and sunny for much of the year. Recently, we were experiencing hot weather up to 36 degrees Celsius. Hot weather will create physical pressure on the health of a person. It could lead to a fatal heat stroke. The hot and dry weather not only brings negative effects to the ecosystem, but also human health.

Despite what is the weather, we have to go out to live our usual life. We still have to face the problem and deal with it. This product can be a solution for it especially for people who have to walk in a long distance under the hot sun. Basically, umbrella is designed to protect a person against rain or sunlight. However, with our new technology, we had implemented some unique features to the improved the usage of umbrella.

### 1.2 Purpose of development

The purpose of this new product development is:

1. To protect people from ultraviolet light besides basic needs for shade
2. To provide breeze delivered by a fan located in the apex of the underside
3. To improve the use of the existing umbrella by adding GPS tracker and torch light for owner's safety purpose.

### 1.3 Product Concept

- For sun/ UV light/rain protection
- To give cooling effect
- Can use as portable torch light at night
- Have GPS tracker that can link to smartphone apps
- To save energy (rechargeable battery and can use solar power)

## **1.4 Application**

The 'Cooling Umbrella' protects all people from the sun, heat and humidity as well as it does from the rain. It also can be used as a torch light at night.

### **1.4.1 Functions**

- Motor fan- used a built-in motorized fan that produces a refreshing downdraft with an air flow of 654 feet-per-minute.
- PVC canopy- used a 58.5 cm diameter polyester canopy with PVC backing that blocks 99% of harmful UVA and UVB rays for a UPF of 50+, the highest attainable

## **1.5 Unique features**

The uniqueness of the product for availability in Malaysia market consists of:

- Attach with the LED torch light that can be very useful at night
- Attach with fan for cooling effect
- Attach with GPS tracking technology for safety or for family locator
- Ultra-light weight, easy to carry everywhere in pocket/ handbag/ bag pack
- Stylish color and design for attraction
- Torch light and GPS tracking technology can be use directly, no need to open the umbrella.
- Battery power up to 6 hours (rechargeable)