



**NEW PRODUCT DEVELOPMENT (NPD) REPORT**

**'MOBILE HOLOGRAPHIC OPTICAL DEVICE'**

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## **1.0 Executive summary**

The team is developing a mobile holographic optical device, a small and portable device that is made up of modifications of complex digital and optics machineries to project a hologram in 3-dimension. It is designed to project faces, buildings, maps and videos to make it much easier for consumers to see. The idea is generated based on Yuri Denisyuk who first invented a white-light reflection hologram which was the first hologram that could be viewed under the light in 1962. His findings inspired us to modify it to something that could be used in our everyday life, hence the mobile holographic optical device or MHOD for short. As people nowadays prefer convenience and affordable products, this device fits the bill as it is small, light and easy to use. A product concept testing with a survey conducted among a few students shows that when this device is available on the market, this device is convenient everywhere and for everyone. The device will be tested by randomly selecting beta testers and once it is completed and perfected, it will be ready to test in the market.

## **2.0 Introduction**

### **2.1 Problem statement**

There is a need in creating a new way in communication between two parties. Audio communications nowadays are only limited to voice call and video call. Many people want a new way in communicating with their loved ones or just anyone in general. As technology advances exponentially, the way in communicating should also progress too.

### **2.2 Methodology**

The method that is used in studying and identifying this problem is by observation and deduction. By observing the trend nowadays and what's in the market, the solution is deduced from varying needs of different people from around the world.

### **2.3 Limitation**

This device will have several limitations at first such as the bandwidth of internet used in transmitting and receiving the data from the other party. Other limitations are the battery life of the device itself. In projecting and receiving the hologram of both parties, it will require a tremendous amount of energy when the device is in use.

## **3.0 New Product Development**

### **3.1 Definition**

The team plans to reveal the holographic display device which projects 3-dimension objects that can be view from different angles based on our physical position. For example, a mapping application could be theoretically look like a little model of a city with buildings poking out of the screen. This device is named 'Mobile Holographic Optical Device or MHOD for short. It is able to feature stunning holographic content and sound for movie viewing, interactive gaming and social messaging.

### **3.2 Classification of NPD**

This device is made up of modification of complex digital and optics machineries to project a hologram in 3-dimension. The new product will be a simpler device that provides and combines several functions of the instruments at a lower cost.