

51802



## Development Of Pen Printer

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## **1. EXECUTIVE SUMMARY**

NeoScan Sdn Bhd is a new company established in October 2018 with a big vision "To produce the best friendly and high quality printing machines in the world". Our company focus on bringing friendly and time saving printer especially for students and workers. We have created a Pen Printer that make printing become more easier and cost effective.

Our product features consisting of ink transferring technology, flexible waterproof circuit and USB power source. This features inside the printer make it safe to use at any conditions. This product was engineered and design toward providing a user friendly printing machine.

Most of existing printer in current market use ink catridges that are specifically made for the printer which can cost a lot especially for students in college. The price for ink catridges in Malaysia can be ranging from RM30 to RM 300 depending on the quality of the ink. We have taken one step further from the competitors by introducing Pen Printer.

We strongly believe that our product can go further by keep on focusing on research and development to improve our product quality, so that we can sustain in the market as nowadays, people are looking forward and interested to try new and friendly technology.

## **2. INTRODUCTION**

Nowdays, no matter in what fields of working, everyone need a printer to print documents from their computer, phone, tablets and so on. This is because hard copies are still important and that is where the importance of a printer cannot be doubt. However, most of printer available in the market these days are massive in size and also heavy which make it hard to carry around and less friendly. Besides that, the need to always buy ink catridges can be costly as ink catridges price are expensive. Hence, we have decided to develop Pen Printer which can help to solve all of the problem.

Pen Printer is a printer that are engineered for students in college and daily office workers. It can be used anywhere such as at the café, library, classroom and office. It also can be used anytime because of it compact, simple and friendly design. It operate through USB power supply by converting pen ink into printer ink. The limitation in Pin Printer are it cannot print multiple colour as it can only fit one pen due to the simple design.

### 3. NEW PRODUCT DEVELOPMENT

#### 3.1 Definition

The Pen Printer is an innovative printer that does not require much energy to be carried around when compared to the traditional printer. It can be carried with one hand due to its compact design. One touch is all it need to operate this printer as its simple design only consist of one button which is the power button making it easier to use even for the elderly. This printer is perfect for those who want to save money from having to buy ink catridge as it used the ink from the pen which are way more cheaper. This Pen Printer can help customer in printing their document without the need to go through with many process.

#### 3.2 Classification of NPD

The current stage of this Pen Printer is in pre-research and development process. Our product is an improvement of an existing products. We have done an addition to existing line as a subset to the new product line by targetting to different market segments. We also improved and revised the existing products as we want this new printer to replace the current existing printer as it is more convenient and efficient. We also done a cost reduction by offering new benefits to the consumer with a cheaper technology which can provides enormous added-value to the company.

#### 3.3 New Product Development Process

##### 3.3.1 Research & Development

A new product development (NPD) is the complete process of taking new product in the market. There are 3 stages in entrepreneurial which consist of idea search and generation process, idea screening and market survey. The idea search and generation process are the first stage in this process. Ideas are generated to solve a problem that occur, or to meet some demand and need. Currently, the problem that we perceive are difficulties to print document hands on and instantly. Especially for the college students and office workers who are in hurry to submit their work. Therefore, we want to come out with a printing device that will help people to print their works effieciently. We named the product as Pen Printer. The second stage is the idea evaluation and development phase. This stage includes research and development, concept testing and test marketing. We will discuss about the structure of the product, together with its function and application of technology. The

design team will view our ideas and will give their opinion on whether it is applicable and reliable. They will also give improvement in terms of quality as it is their expertise. For the market survey, Puncak Alam is chosen as a target because the area is a new development area which is suitable to develop the new company here. We also believed that we can manage to gain profit for our company. From our survey, we found that the area has many gadget shops. The selection of our market area is suitable because we select town area as our location. The location has easy access to the road and highway thus making it more easier to transport our product to customer. The customers also can easily come by themselves to our company if they want to purchase the product directly.

### 3.3.2 Consumer Trend Canvas

#### A. Analyze

##### Basic need

NeoScan fulfill customers' needs to save their time in printing their documents task by using this Pen Printer. Nowadays, trends for new product are those which can be applied to everyone in making works become easier. This is relevant due to this product can save so much of the client's time, energy and money. Hence, making them want to use this Pen Printer.

#### B. Apply

##### Innovation potential

Based on the observation, we can see that this innovation has potential in order to attract more customer to buy and therefore increase the sales of the company. Example of innovation potentials that can be used and manipulate are such as demonstrating how to use the Pen Printer. This will help to promote the product to become more universal for the user as the product did not use cartridge ink. Besides that, we also try to make the printer that become simpler by reducing the printer weight and size to make it become portable. By using this innovation potential, we can make the user to feel content and happy.

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