UNIVERSITI TEKNOLOGI MARA MALAYSIA

SMART i-BOT

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1.0 EXECUTIVE SUMMARY

New Product Development is important because our world is moving forward, and the technologies are getting advance. Smart i-Bot is a product that can improve people everyday life by giving a cleaner air. Smart i-Bot is mainly a smart auto mobilize air purifier robot. This product can detect air pollutants presence in the air surround the building and directly purify to maintain the air quality. This product functioning by transmitting an infrared wavelength from assistance sensor and send signals to Smart i-Bot. The air quality report of the building will send from Smart i-Bot to mobile phone through installed apps. Smart i-Bot also has hidden security camera which will ensure that your protection is started right away. This method sends the data over a local network so that you can view your cameras from anywhere on the network in real time. By launching this product our company will move one step ahead of our competitor as our product is easy to use and have more functions. As a conclusion, Smart i-Bot will be people choice as almost 87 % respondent from the market survey willing to use it due to the convenience that being provided

2.0 INTRODUCTION

2.1 Problem Statement

Nowadays people do not realize they are highly exposed to indoor air pollution which can cause acute or chronic illness to the respiratory system mainly. Common air purifier usually only stays on one place such as near to front door functioning helps in removing airborne particles and catch allergens prevent them from circulating throughout your home. The team found that most people tend to place the air purifier at the corner of the room. Common air purifier also cannot remove the dust and pet dander settled on the carpet. Common air purifier is a disadvantage for a room where it has poor air flow so that it cannot be fully optimised in projecting clean air to every nook and corner. This means that it is not purify the air in the whole room properly and in entirely. In addition, common air purifier also uses direct current and taken up space which not suitable for small space. Apart from that, consumers are unable to monitor the status of indoor air quality problem inside their house as it does not link with mobile phone.

2.2 Methodology

A public survey being done to gain some idea from public in order create product that satisfy the consumer. Generally, day-care centres are get involved in this public survey. The surveys are answer through online and distribute using WhatsApp.

2.3 Limitations

These project limitations are few people do not realize the serious effect when living in such poor air quality, so they do not know how crucial air purifier in their home.

3.0 TECHNOLOGY DESCRIPTION

This Smart i-Bot use to purify the air in home giving cleaner air assist by beeper and makes home more secure. Beeper is static air quality detector functioning in detect the presence of air pollutants in the air. If the percentage air quality is low, beeper will transmit signals to Smart i-Bot to purify the air. This will maintain the air quality efficiently. The filter pad made up with active carbon from coconut shell which effective in trap fine particles of chemicals, dust and allergen in the air. Smart i-Bot can link with mobile phone by install the apps making easier for users monitor status of air quality of the house. This air purifier moves around the home space to purify and maintaining the air quality assist by beeper and sum up the report of air quality status and send to mobile phone through Wi-Fi connection. As indirectly user also can access the security camera of Smart i-Bot from anywhere on mobile phone apps. This method sends the data over a local network so that you can view from anywhere on network in real time. This project makes the air purifier notify the user about latest update about air quality status in their home and improve your home security.

4.0 NEW PRODUCT DEVELOPMENT

4.1 Definition

Our product called Smart i-Bot which means smart independent robot. People nowadays prefer everything that is on their fingertips from looking an information to connect with others. Thus, our product will help to make their life easier. Basically, our product is smart air purifier with security camera covers the scope of environmental, safety and health of human daily life. This product apps can be download from Google Store or Apple Store.

The difference of our product with the existing product is our product can move by itself while purifying the air in entire home and self-charge when battery is low. Besides, our product can connect with mobile phone to notify the latest update air quality status to the user. Our product also has hidden security camera where people are unaware that they are being recorded as the hidden camera is not visible to the subject being filmed or disguise as air purifier.

4.2 Classification of NPD

Smart i-Bot classified as "Improvements and revisions of existing products" in the classification of NPD. These are the new products that replace existing products by providing improved performance and functional enhancements. For example, Smart i-Bot is a multitasking robot which are not only to purify the air but also can be security camera which people unaware of its function. Furthermore, it can connect with mobile phone to communicate with users.