UNIVERSITI TEKNOLOGI MARA

NEW PRODUCT DEVELOPMENT (NPD) REPORT

LIFE-BATT

Faculty	:	Faculty of Applied Sciences
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TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

The team is developing a device called Life-Batt which enables two phones to share the battery without using a wire or external battery such as power bank. Besides, Life-Batt is also designed to be compatible with all type of phone. The idea is generated based on the observation that we did during our daily life that shows most people are facing a problem where their phones is running out of battery. Besides, we also observed that their phones could only last less than 24 hours. As we observed more into to this problem , most of people also claim that even though they have a portable charger, they sometimes forget to charge the portable charger so it is stressful for them. Different phones have different charger cable and this causing a problem to most people as they have to bring their own charger cable everywhere they go. As people nowadays preferred a convenience device to make their life is more easy, this device is suitable as it is small, wireless, and it is compatible with all type of phones so they can share it with everyone. A product concept testing with a survey conducted through our Instagram shows that 79% of our followers are interested in this device. We also conduct a survey among UiTM students by answering some questions in the google form.

2.0 INTRODUCTION

2.1 Problem statement

Battery life is a perennial problem for smart phone owners. They often faced a problem where their phone battery is always draining due to excessive daily usage. It get worst when they are using the internet or playing games. Besides, smart phone batteries often last less than a day. When this problem occurred, they need a phone charger or a power bank. Sometimes, they also need to bring their own charger cable as the phone's charger cable is different depending on what type of their phones are.

2.2 Methodology

The following method is used to study the type of the external device and charger cable to charge phone's battery. The method that we used are by visiting the phone shop and ask the worker more about what type of device that available that can be used to charge the phone.

2.3 Limitations

Eventually this device has some limitation which are twice energy needs to be transmitted as is received to the receiver. Next, some of energy might lost to surrounding during the transmission energy process.

3.0 NEW PRODUCT DEVEOPMENT

3.1 Definition

The team is developing a device called Life-Batt which enables two phones to share the battery without using a wire or external battery such as power bank. This device is also compatible with all type of phones.

3.2 Classification of NPD

This device is the improvements on existing products based on the revisions to existing products. The new product will be a simpler device that combines several functions of those instruments at lower cost. The new product will also be more convenient compared to the existing products.

3.3 New Product Development Process

3.3.1 Research & Development

Idea Generation

Idea is generated by observing people around us that always faced a problem regarding to their phone's battery. Their phone is always running out of battery and they need a portable charger with a charger cable that compatible with their phones.

Idea Screening

The team considered two devices model with the same functions, which is used to share a battery between two phones without using a wire.

1) Mobile application that using coding system to transfer the battery from one phone to the other phone.

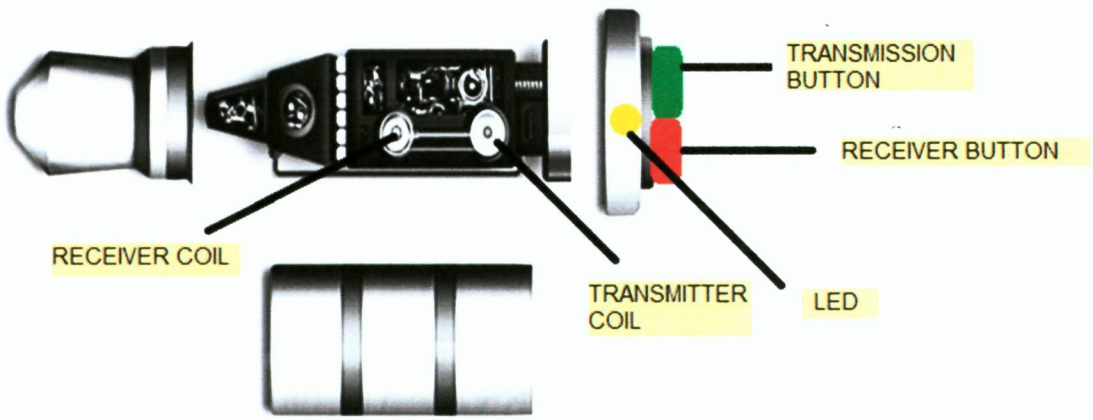
2) A device that consists transmitter and receiver coil that will enable a sharing battery between two phones.

After some discussions with the team members and interviewing some respondents, the team decided to choose the second idea which is a device that enable a sharing battery between two phones. This device is more convenient as they are compatible with all types of phone. The team also choose the second idea because as for the first idea , different type of phone will have different coding system and it would take longer time to figure out what the coding is.

Market Survey

A short discussion session with team members came out with the conclusion that this will be a useful and convenient product to all types of generation especially students and travellers.

3.3.2 Product Design/Features



3.3.3 Concept Testing

A survey conducted among our Instagram followers to show that when the device is available in market, 79% of our followers are interested in this device as it is more convenient. Besides, from the google form survey with about 186 respondent, 90.9% of them always have problem where their phone is always run out off battery and 85.4% of them thought this problem really affected their daily life. Most of them usually used power bank to charge their phone when they are outside the house and seldomly bring their phone's charger. They also agreed that it is convenient to have small device that can replace the power bank when about 94.1% say yes. Most of the respondents find it is difficult to bring power bank to the class when about 60.2% vote yes. About 88.2% or respondents are interested in the wireless device that can help them to share phone's battery with friends.

3.3.4 Build prototype

The team will build the prototype once we got the grant from the government.