

E-BOOK OF EXTENDED ABSTRACT

THE 14TH INTERNATIONAL INVENTION, INNOVATION & DESIGN COMPETITION 2025



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INVENTION, INNOVATION &
DESIGN COMPETITION 2025

Organized by:

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UiTM Perak Branch

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V2 MULTI-PURPOSE BAG FOR FASHION STUDENTS

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ABSTRACT

The project focuses on an upgraded sewing tool bag that has been transformed into a multi-purpose bag, making it highly beneficial for fashion students. The all-in-one bag offers versatility, compactness, and convenience. The most notable features of this multi-purpose bag are the detachable pocket design and an apron equipped with an organizer. The objectives of this research are: (i) to enhance the potential of the apron bag to suit fashion students; (ii) to examine and improve the design styles by adding a new compartment for patterns, a sewing toolbox, and safety features; and (iii) to provide a QR code that contains templates for pattern paperwork, including technical drawings, pattern charts, marker layouts, garment workflows, and costing examples for students' reference.

Key Words: Bag, Fashion Students, Multi-function

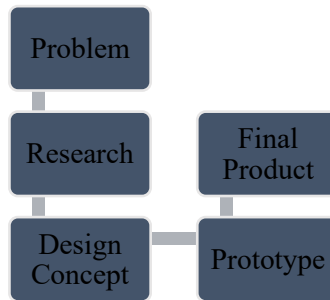
1. INTRODUCTION

The art of creating clothing and accessories is synonymous with fashion students. From the conceptual thought process to the material design of the final product, the process involves various experiments. The creative process requires the right tools, materials, and equipment. Essential sewing tools include various types of rulers, paper in different sizes, fabrics, and small items such as pins and needles. Gadgets like mobile phones and laptops also form a critical part of the must-have list of items.

This innovative design is intended to address several key issues: i) Weather (rain) by protecting the contents of the bag with waterproof fabric, ii) Mislabeled pattern paper and sewing tools, iii) Safety concerns by incorporating reflective fabric that illuminates in the dark, iv) QR codes as "Go Getter" examples/templates, which include technical drawings, pattern charts, pattern marker layouts, workflows, garment flow, and costing, v) An extra compartment for mobile phones and power banks.

The research aims to examine the potential of bag and apron designs that contain functional features, providing comfort and safety while simultaneously showcasing high-tech fashion attributes.

2. METHODOLOGY



3. FINDINGS

Based on previous design and feedback from UiTM Seri Iskandar, it is proposed to upgrade the product by:

- (i) Examine new potentials and features of multi-functional bags for fashion students
- (ii) Upgrade design with extra compartment for pattern block, sewing tools
- (iii) Identify suitable material for safety and waterproof aspect
- (iv) Develop a QR code for go-to access to pattern templates



Image 1: Previous Design

4. NOVELTY

1. Usability - Function: The apron bag will be multi-functional, flexible, adjustable, and trending with current fashion trends. Multiple compartments will be added to the design for practicality. The elements of comfort will be taken into account to aid comfort to the users in their daily activities. Waterproof fabric is used as a feature to protect items such as sewing tools and gadgets. Meanwhile, illuminated fabric material adds safety value to the design. QR with the concept of Go Getting idea will be added into the design to make it reliable for fashion students to access pattern items (technical drawing, pattern chart, pattern marker layout, workflow/garment flow, costing) online.

2. Aesthetic - Aesthetic features (size, shape, colour, texture): the apron bag will be designed with minimal simplicity with utter stylistics. The shapes and silhouette will be substantially practical, which will provide ease for users to move and engage in activities with style. The size will be bigger than the previous design to allow space for more compartments in the design.

5. CONCLUSION

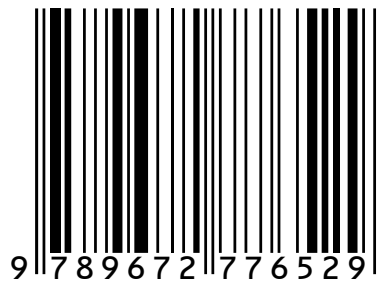
The 2.0 upgraded version multi-functional work bag design will be essential to fashion students. The practicality of this design can be seen through its multi-functional concept. Waterproof and reflective fabric is used in this design to create durability and safety for the user. A bigger size bag that is equipped with multiple compartments makes this product practical for the user.

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