## Designing an adjustable electricity extension plug board to enhance the concept of Usability

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## **Abstract:**

The research discusses how to design the multi-input electricity extension plug board, known locally as the electrical connection panel, which is one of the most important products or simple tools that people rely on in their daily lives, and it is indispensable in connecting electrical-powered device. However, sometimes these products may be the most dangerous If its manufacturing's quality is neglected or misused especially these types of products are found in all homes, companies, and institutions. The research aims to redesign the conventional electrical plug-in board based on identifying the deficiencies of the traditional product common among users.

The study made it possible to identify the potential risks that occur because of faulty design and poor product materials, thereby re-designing an adjustable multi-entrance electricity extension plug board that takes into account the proposed solutions for a safe and effective design. The researchers also provide different design solutions that suit the interaction environment and periodic maintenance of the product, which makes it suitable for the process of human use and promotes the concept of usability of products which makes the work environment less stressful and more enjoyable.

## **Keywords:**

Ergonomics, Usability, , Domestic Appliances Electricity plug board

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