

PROTOTYPE DESIGN COLLECTION

SERIES 2



Prototype Design Collection

Series 2



AHMAD NAJMIE RUSLI

**UNIVERSITI TEKNOLOGI MARA CAWANGAN JOHOR
KAMPUS PASIR GUDANG**

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FOREWORD

This digital book on Prototype Design Collection Series 2 (PDC Series 2) is published as a reference design for mechanical engineering students. The designs presented experience a few phases of analysis before fabrication of prototype. Each project summarises the project description, prototype, figures, and design parameter. The design products vary in tools or equipment for household, workshop, entrepreneur, etc. Suggested material and detail of prototype dimension are also mentioned in this book.

It is hoped that this book will assist the students to have more ideas on innovation design products in the future.

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CHAPTER 100

Automatic Motorbike Side Stand

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PROJECT DESCRIPTION

In today's world, two-wheeler vehicles play a crucial role in our lives as a means of transportation. They provide convenient travel from one place to another. However, they can also be a cause of both minor and major accidents when riders forget to lift off the side stand. The side stand serves an important purpose when the vehicle is at rest. Therefore, it is crucial to prevent riders from encountering this issue, which occurs frequently. One solution is to implement an automatic side stand mechanism in vehicles. This mechanism lifts the side stand automatically when the vehicle is starting or coming to a stop. The concept behind the automatic side stand is simple, easy to understand, and practical for real-life applications. In countries like Malaysia, there is a significant number of accidents caused by riders forgetting to lift off the side stand. This issue has serious consequences, impacting many lives. By installing this mechanism, we can effectively prevent such accidents from occurring.

Keywords: *Automatic, Side stand, Motorcycle*

PROTOTYPE



DESIGN PARAMETER

