

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
BENDING MACHINE FOR TORSION
TEST SPECIMEN PREPARATION**

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ABSTRACT

This research project focuses on the development of a bending machine aimed at producing specimens that fit into a jig holder for experimental purposes. The background of the study identifies the need for a bending machine that can efficiently fabricate specimens compatible with jig holder used in experimental setups. The problem statement highlights the challenge of achieving precise bending angles to ensure proper fitting of specimens into the jig holder. The methodology employed involves the design and fabrication of the bending machine, integrating user-friendly controls to achieve accurate bending results. The expected results encompass the machine's capability to bend specimens up to 90 degrees while also reducing overall expenses by eliminating the need to purchase prefabricated specimens. This cost-efficient approach allows for repetitive specimen fabrication, enhancing productivity and research efficiency. In conclusion, this research project aims to successfully develop a bending machine that meets the desired bending specifications for proper fitting into the jig holder, ultimately contributing to cost savings and increased experimental accuracy.

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