

DESIGN AND CONSTRUCTION OF MID DRIVE BLDC MOTORS FOR ELECTRIC VEHICLES

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ABSTRACT

This research aims to: (1) produce mid drive BLDC motor design products for electric vehicles, (2) obtain performance testing results for mid drive BLDC motor design products for electric vehicles, and (3) obtain feasibility test results for design products build a mid drive BLDC motor for electric vehicles.

The type of research used in this research is product research and development by adapting the Branch version of the ADDIE model (2009). The outline of the steps in this research are: needs analysis, design, and product development which consists of product creation, product performance testing, media expert assessment of the product, limited product implementation, and evaluation of each research step. Data collection techniques used: (1) performance testing using various electrical measuring instruments, while (2) product feasibility using observation and questionnaires. Data analysis techniques use descriptive and quantitative.

The results of this research are (1) Mid drive BLDC motor design trainer for electric vehicles, (2) Product performance test of mid drive BLDC motor design trainer for electric vehicles shows good performance, and (3) Product feasibility test from experts get the assessment results from material experts is 4.01 (feasible) and media experts are 4 (feasible).

Kata Kunci: *Trainer, Motor, BLDC.*