

DEVELOPMENT OF VIRTUAL REALITY-BASED ELECTRIC MOTOR CONTROL SIMULATION TO IMPROVE COMPETENCE IN ELECTRIC MOTOR INSTALLATION FOR STUDENTS IN VOCATIONAL HIGH SCHOOLS

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ABSTRACT

The purpose of this research is to produce IML learning tools by utilizing virtual reality-based simulation development to increase the competence of electric motor installation in VHS. This study uses research development research methods of the Research and Development type with the ADDIE development model, namely 1) Analysis; 2) Design; 3) Development; 4) Implementation; 5) Evaluation. The mandatory Output are obtained MOU/IA and approved journal articles in International Journal of Interactive Mobile Technologies Q3. The Additional Outputs are (1) issuance of virtual reality program copyrights for practicum simulations of electric motor installation for Vocational High Schools and learning e-modules and tutorials on using virtual reality for IML learning; (2) Article in international seminar proceedings indexed by Scopus Ice-elinvo 2023; and (3) Intellectual property rights. TKT for now is still 1 and the target of this research is 5. Development results regarding Development of Virtual Reality-based Electric Motor Control Simulation to Improve Competence in Electric Motor Installation for Students in Vocational High Schools. Product of Virtual Reality-based Electric Motor Control Simulation to Improve Competence in Electric Motor Installation for Students in Vocational High Schools has good performance, this is indicated by of the 20 test items, there were 19 items (95%) that tested well, and only 1 item (5%) did not work or function well.

Kata Kunci: *virtual reality, electric motor control, competence*