

**PENGEMBANGAN MEDIA PEMBELAJARAN SIMULASI KONTROL
MOTOR LISTRIK HIDUP BERGANTIAN MENGGUNAKAN
*PROGRAMMABLE LOGIC CONTROLLER (PLC)***

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ABSTRAK

Penelitian ini bertujuan untuk membuat media pembelajaran simulasi kontrol motor listrik hidup bergantian menggunakan *Programmable Logic Controller (PLC)* mengetahui kelayakan, serta mengetahui respons peserta didik terhadap Media Pembelajaran Simulasi Kontrol Motor Listrik Hidup Bergantian menggunakan *Programmable Logic Controller (PLC)* pada mata pelajaran Instalasi Motor Listrik di SMK Negeri 3 Singaraja. Penelitian ini menggunakan metode penelitian dan pengembangan *Research and Development (R&D)*. Pengumpulan data dalam penelitian ini dilakukan dengan penyebaran angket/kuesioner yang dinilai oleh ahli isi/materi, ahli media, dan siswa kelas XII jurusan Teknik Instalasi Tenaga Listrik SMK Negeri 3 Singaraja. Hasil penelitian diperoleh: hasil uji validasi dari ahli media mendapatkan persentase 90,00% termasuk kualifikasi sangat layak, hasil uji validasi ahli isi/materi mendapatkan persentase 94,00% termasuk kualifikasi sangat layak. Hasil uji coba kelompok kecil dengan 5 responden, 1 responden termasuk kategori netral dengan persentase 20%, dan 4 lainnya termasuk kategori sangat setuju dengan persentase 80%. Hasil uji kelompok besar dengan 20 responden, 19 responden termasuk kategori sangat setuju dengan persentase 95%, dan 1 responden termasuk kategori netral dengan persentase 5%. Berdasarkan hasil penelitian, Media Pembelajaran Simulasi Kontrol Motor Listrik Hidup Bergantian menggunakan *Programmable Logic Controller (PLC)* layak digunakan pada kegiatan praktikum Instalasi Motor Listrik.

Kata Kunci : *Media Pembelajaran, Kontrol Motor Listrik Hidup Bergantian, Programmable Logic Controller (PLC), Instalasi Motor Listrik.*

LEARNING MEDIA FOR ALTERNATING LIVING ELECTRIC MOTOR
CONTROL SIMULATIONS USING A PROGRAMMABLE LOGIC
CONTROLLER (PLC)

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ABSTRACT

This study aims to create learning media for alternating living electric motor control simulations using a Programmable Logic Controller (PLC) to determine the feasibility, as well as knowing the responses of students to Learning Media for Alternating Living Electric Motor Control Simulation using Programmable Logic Controller (PLC) in the subject of Electrical Motor Installation. at SMK Negeri 3 Singaraja. This study uses a Research and Development (R&D) research and development method. Data collection in this study was carried out by distributing questionnaires which were assessed by content / material experts, media experts, and class XII students majoring in Electrical Power Installation Engineering at SMK Negeri 3 Singaraja. The results obtained: the results of the validation test from the media expert get a percentage of 90.00% including very feasible qualifications, the results of the content / material expert validation test get a percentage of 94.00% including very feasible qualifications. The results of the small group trial with 5 respondents, 1 respondent was in the neutral category with a percentage of 20%, and 4 others were categorized as strongly agree with a percentage of 80%. The results of the large group test with 20 respondents, 19 respondents were categorized as strongly agree with the percentage of 95%, and 1 respondent was in the neutral category with a percentage of 5%. Based on the research results, the Learning Media for Alternating Living Electric Motor Control Simulation using a Programmable Logic Controller (PLC) is feasible for use in the electric motor installation practicum activity.

Keywords: *Learning Media, Alternating Living Electric Motor Control, Programmable Logic Controller (PLC), Electric Motor Installation.*

