

INTISARI

Pembelajaran mengenai *Programmable Logic controller (PLC)* akan lebih mudah dipelajari bila terdapat media pembelajaran secara nyata misalnya dalam bentuk *trainer PLC*. PLC merupakan suatu pengendali sistem pemrograman yang banyak digunakan pada industri otomasi. Penulis merancang sebuah *trainer PLC* kendali lampu LED menggunakan bahan dasar akrilik yang ditempatkan dalam koper berbahan alumunium berukuran 46 x 33 x 15 cm. Penyambungan pada bagian *input PLC* menggunakan prinsip *sourcing* dimana *port common input* mendapatkan +24 VDC. Sedangkan *output PLC* digunakan prinsip *sinking* dimana *port common output* mendapatkan -24 VDC. Digunakan sebanyak 8 buah LED putih, dan 6 buah LED warna (merah, hijau, kuning). Setelah dilakukan pengujian didapatkan nilai rata-rata eror hingga 0% yang menunjukkan bahwa alat dapat berjalan sebagaimana sesuai program yang dimasukkan pada tahap perancangan.

Kata kunci : *Programmable Logic controller (PLC), Light Emmiting Diode (LED), input sourcing, output sinking, CX-PROGRAMMER.*

ABSTRACT

Programmable Logic controller (PLC) will be easier to learn if there are real learning media for example in the form of a PLC trainer. PLC is a programming controller system that is widely used in the automation industry. The author designed an LED light controller PLC trainer using acrylic base material placed in a 46 x 33 x 15 cm aluminum luggage. Connection on the PLC input using the principle of sourcing where the common input port gets +24 VDC. Whereas the PLC output uses the sinking principle where the common output port gets -24 VDC. Used as many as 8 pieces of white LEDs, and 6 color LEDs (red, green, yellow). After testing it is found that the average error value is up to 0% which shows that the tool can run as according to the program included in the design stage

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