PROCESSING STATION BASED ON PLC ZELIO SR2 B201 BD

ABSTRACT

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The goal of the final project named "processing station based PLC Zelio SR2 B201 BD" is to apply a useful technology for the progress and development of the science and technology that can be applied in a learning tool for students that describes the production process, labeling and drilling automatically.

The method used in this activity program is developing the device of processing station based PLC Zelio SR2 B201 BD. The steps of the development are identification of the need of device, modeling of hardware, modeling of software, and collecting the data. The modeling of the hardware includes: power supply, sensor systems, data processing systems, relay driver and DC motor driver. Power supply circuit, the section as a power provider for all circuits. Sensor system consisting a pair of photodioda and infrared LED and IC LM324 as a comparator and output of IC comparator used as the input to the processor system processor. This circuit functions to process the input from infrared sensor and outputs a command to the relay driver and DC motor driver.

Based on the test and the performance from processing station based PLC Zelio SR2 B201 BD this device demonstrated results in accordance with the plan.rotary indexing table can work with a speed of 2.05 seconds every 1/6 circle which means it has an average speed 5 rpm. The stop process of rotary table 60^o per 1/6 cycle with a maximum tolerance of 2^o, 1^oslide right and 1^oslide left. The precision of the rotary table with the truth 98.6%. The down speed of drill elevator with a distance of 10cm span is 3 seconds, the speed up at the same distance takes 4 seconds. This device can process workpieces from the process of testing, clamp, drilling, and ejecting. All processes run automatically.

Keyword : Processing station, Otomation, *PLC Zelio SR2 B201 BD*.