DESIGN AND BUILDING CONTROLLER CIRCUIT
FOR CNC MACHINE COMPACT 5 PC

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Abstract

CNC Compact 5 PC Machine are cnc machine that operated for turning process on a computer. To control the machine, software and a series of hardware are needed. Broken cnc machine condition and unable to run, encourage a repair action for the following machine.

New software designing for the machine are followed with controller design that translate the data from the new software. The hardware designing includes choosing the suitable interface component, stepper motor using to move the tool and to get programming simplicity. Testing are conducted to the hardware. The following testing are then integrated with the software to gain an overall system testing.

The result of this final project are a series of motor stepper controller that have ability to receive data from the software into two dimension movement of a tool on a cnc machine. From the test can be concluded that there are no difference between *** with the actual movement of the tool on the cnc machine. The test resulting movement for the motor stepper are 0.0139259 mm/step on x-axis and 0.01359351 mm/step on z-axis. This data used as an input for the software.

Key word: CNC Machine, interface component, motor stepper controller.