

ABSTRACT

In this activity on a wire wrapped around the transformer, we still often find a technique that is performed by wrapping the wire evenly line by line with the manual system using human hands that we are familiar with the manual roller transformer. This manual roller is required accuracy in the number of coil windings which will be rolled. Therefore we need a tool that can facilitate the making of the coil.

In this final project has been realized automatic wire transformer roller that can facilitate in making winding. this is devoted to the manufacture of transformer. The working principle of this device is done automatically according to the wire windings voltage selected by user using the keypad in the menu that displayed on the LCD. Once the voltage is selected then the data is sent and processed in the microcontroller which then results will drive the motor and the amount of each coil will be displayed on the LCD. This roller uses 3 unipolar stepper motors as a slider and a wire clamp wire rollers, ATmega 8535 microcontroller to process the voltage data that entered by the user, limit switch sensor as limit sensor on stepper motors, keypad to enter the desired voltage, and LCD to display process and the end result of scrolling..

Automatic wire transformer roller is can produce wire coil transformer with an average success percentage of 99.04% and simplify the user in the use and can replace manual systems are still in use.

Keywords: *Wire transformer roller, stepper motors, keypad, LCD, Microcontroller ATMEGA 8535*