AUTOMATIC WINDING MACHINE

ABSTRACT

The main objective of this project is to develop an automatic coil winding machine which can be used for various winding operations that will greatly reduce an effort behind the manually operated machines and to implement the idea of automation in coil winding machines. This method can also be used to reduce the manufacturing cost and also to increase the rate of productivity. This machine can be used to wind coils of wires pertaining to any limited gauge. Firstly, the manual methods of winding were in practice and this method proved to be very tedious and the time required for winding was more. Hence, it was necessary to make some revolutionary changes in the field of winding. The components produced by this method have good strength to weight ratio and is also cost effective. Manual wire winding had to be a conventional way earlier but it lacked in accuracy as the wire used to be either loose or tight; hence it was need for a machine to be manufactured for greater accuracy at a small scale level. This winding machine is easy to use and it is also portable.

Block diagram consists of keypad, Arduino, display, Stepper motor and coil winding machine. This demo works on the basis that the keypad provided is for entering the set values that is the number of windings can be given In case of transformer the primary winding & secondary winding can be entered. The Values entered can be monitored in the LCD.

BLOCK DIAGRAM: