Under DR Mohamed Ibrahim supervision we have designed a CNC Plotting Machine.‎

- It contains 2 phases

1. open loop
2. closed loop

- Open loop phase →

The construction of the machine is based on DIY CNC Laser Engraver machine where the goal was to make the simplest CNC machine with minimum parts possible. It uses 2 NEMA 23 stepper motors for the X, Y and a servo motor for the Z axis motion, The brain of this CNC Pen plotter machine is an Arduino UNO board in combination with a CNC shield and two TB6600 stepper drivers We have to provide co-ordinates number of any text, shape, and image in order to take a print, of course, we will take help of a software to convert our text, shape or image in co-ordinate form .We generally used to call that that co-ordinate number containing the file is “Gcode” (general code), so we have to save our files in the “Gcode” format.

- Closed loop phase →

The construction of the machine is based on DIY CNC Laser Engraver machine where the goal was to ‎make the simplest CNC machine with minimum parts possible Using Extra Code contains PID to be able to connect the GUI controlling the plotter to DC motors and Feedback sensors and encoders have also been added up to the system .‎We have to ‎provide co-ordinates number of any text, shape, and image in order to take a print, of course, we will ‎take help of a software to convert our text, shape or image in co-ordinate form .We generally used to ‎call that that co-ordinate number containing the file is “Gcode” (general code), so we have to save our ‎files in the “Gcode” format.‎

the link below for help to understand more of details of this plotter machine

Thanks to my team, you made me happy to work with you

<https://www.linkedin.com/in/elsayed-ayman-159a17212/>

<https://www.linkedin.com/in/ali-hany/>

<https://www.linkedin.com/in/anas-ahmed-1b56161b3/>

<https://www.linkedin.com/in/abdelrahman-leithy-892318198/>

#mechanicalengineering #mechatronics #pid #matlab #inventor #team #project