Abstract

In order to minimize the cost of the CNC machine, this paper proposed an idea to recycle the waste material of the old computer system. The implementation of this paper consists of the followings: Arduino UNO R3 board, Stepper motors – for the motion of X and Y axes, mini Servo motor, L293D driver IC, Arduino Processing software (freeware), Inkscape software to create G-codes for the input data (freeware), any type of pen or pencil - as the main source of ink. This project is able to draw complex line drawings by plotting the coordinates using a simple algorithm. Plotting of coordinates is cultured within G-codes prepared by a software after which it is transferred to the microcontroller by which the motor mechanism is instructed to draw the image or text data, motor mechanism includes X-and Y-axes that can each work independently, yet simultaneously.

References

research in electrical, electronics and control engineering, Vol. 4, (pp. 187-188).


Index Terms

Computer Science
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Keywords

Stepper Motor, CNC Machine, G-codes