

Chapter 3

Writing Machine for Blind People

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ABSTRACT

Examination are conducted through online processes. The job recruitment process and degree entrance examination like JEE, GATE, NEET, etc. will be conducted via online center through a third-party company. So, this chapter, per the authors, proposes a system that uses transducer for getting input as a voice. Later, the voice is converted into text then linked with the benbox software and the chosen file is taken as a command for the writing machine. Arduino Uno R3 is connected with stepper motor driver, metal gear servo, expansion board A4988 driver for writing. The machine uses a gantry to move the writing tip along the X and Y axes. The flexible-nib pen is mounted on a servo motor, which rotates the tip onto the third axis. This machine provides comfortability for blind people to write their exam by using voice command.

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INTRODUCTION

In today's technology development people, knowledge moves more widely, quickly, and freely in the speed of the light across the various boundaries. For businesses, governments, and scientific communities, this new environment has brought tremendous opportunities, as well as challenges but blind and handicap people are drawbacks from these normal people. These blind people face many difficulties in the education system they feel difficult to write their examinations. Many institutions and organizations are increasingly gathering intelligence by processing several examinations for every interested challenger. So, these blind people cannot able to implement their viewpoints in the education system and lack of knowledge.

Objective

The hardware is to design and develop a writing machine for blind people. Now a day's blind people showing their interest in education but they are depending on other people or assistance to write their examinations. To overcome this drawback, an automated writing machine is developed for blind people.

Here as given in the title our chapter is based on the blind people to overcome their deficiencies

1. Their information can be given as voice command
2. Automatically it writes their voice command in the writing surface
3. Time consumption—access, fast, clarity and understand the user's command and opinions expressed through their voice in many sources including social networks.

BACKGROUND

As per the chapter title, this is used for blind people not only for blind it is also used for paralyzed people too, it converts speech into text. Blind people depend upon third parties to write their examinations to overcome those dependence authors suggested to use this machine. The authors are going to implement the writing machine based on voice recognition but already introduced the auto writing machine it rotates using three plates to draw and shape. The authors are used voice recognition to take it as input commands. On the other hand, there may some other writing machines created by some other author but authors have created some additional features of voice command at low cost. Authors take 6 pieces of wood as a base of writing machine. It is connected with 2 pieces of Nema 17 stepper motor it is used for rotation, it

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