

Automatized Pen Writer by utilizing Voice Sensor Commands

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Abstract-We are inventing a new concept of pen that is Automatic Pen Writer Using Voice sensor commands. Automatic writing pen has an ability to write words without the person is in unconscious state. The words are declared from sub conscious or spiritual source. Automatic writing pen is a mechanical hand which is used to write the words, characters, numbers etc., from the user commands pen is used to write the document stored in the hard disk, user commands through voice sensor. Another feature is included that is scanner can scan the font style of user and execute it. The components required for automatic pen writer is auto writing hand, battery, hard disk, voice sensor, scanner, transmitter, receiver etc. all in an inventing manner. Automatic pen writer with voice sensor is designed for some purposes like first is to listen the voice of a user and write the documents. In this we are using transmitter and receiver the transmitter is connected to commands given by the user and receiver is connected to the automatic pen. This is used for handicapped people. pen is used for illiterates who are not having writing capability.

Index Terms – Automatic pen writer; pen scanner; voice sensor and transmitter and receiver.

1. INTRODUCTION

Gakken invented a gadget called Mechanical hand! The Gakken Auto-writing Machine is the latest publication from the persons over at Gakken. It is a hand that the pen is attached to its holder, more over it write Japanese character for 'A', harmony sign, or the name Tosa, our research is helped to invent automatic pen writer helps to write text in English. The automatic pen with the help of hard disk for saving huge data and spin that three plates and two sliders are trapped by that then to draw the preferred outline spring overloaded hand should be drag. In fact it is an enthusiastic device to work. The important benefit of this investigation is to intellect the voice of customer and look for the particular text from plates or hard disk and begin to write on the paper. One more benefit of this investigation is to intellect the voice of customer and if the text is not present in plates or hard disk then it writes a fresh text on paper and save it in to plates or hard disk. Scanner scans the font style of the customer and save it.

1.1 Elements of Automatic Pen Writer Using Voice Sensor Command:

There is a need for a method and tools for an authoring marketing and distributing title materials automatically by a computer. In future there is a need for an automated system that eliminates and reduces

the cost associated with human labors like authors, graphic artist, translators, editors, data analysts, distributors and marketing personnel. Therefore, automated pen writer is used to complete the work rapidly. A pen which is hold by a mechanical hand and all the data are stored in plates. Normally plates have limited space. In these situations, we use hard disk for storing the large amount of data. We can use any pen for writing. scanner is used for scanning the font style of user. Transmitter and receiver are used for transmitting and receiving the data from the user.

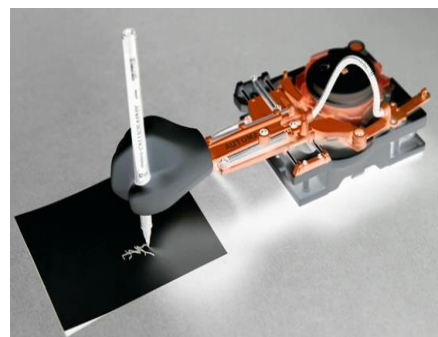


Fig. 1. Automatic Pen Writer using voice commands

1.2 Voice Sensor:

The most common voice sensors can useful for voice recognition provide by a user. Voice recognition

is a technique in present technology by means of specialized software and systems are create for identify the commands in audible frequency ranges given by a user. It can recognize what we provide information to sensor. In mainly, voice can recognize by sensor consists an ADC translator which can convert the analog waves present in humans voice can be convert into digital form signals. To convert speech to on a screen text or by using a computer commands when commands are given to a computer it can do the several operations. But in some cases, it is difficult to recognize voice from several users in these situations we can train the sensor different with commands. During training session, the program displays a printed

Statement or expression, and the user converses that statement or expression numerous times into a microphone. The program computed statistical average of the multiple samples of the same words and phrases store the averaged sample as a template in a program data structure. With this advance to voice recognition, the course has terminology that that is restricted to statement or expression utilized in the working out session, and its user support is also restricted to those users who have worked out for the advance. This system is a speaker dependent. it can have vocabularies on the order of a few hundred words and phrases, and recognition accuracy can be about 98 percent.



Fig. 2. Voice Sensor

1.3 Scanner

A scanner is an input device that scans documents such as photography and pages of text. When a document is scanned, it is converted into a digital format. There are few kinds of scanners in the world and, as with printers, the one that's right for you depends on how you intend to using. The most common types of scanners are flatbed scanners, sheet fed scanners, photo scanners and portable scanners.



Fig. 3. Pen Scanner

1.4 Transmitter

Transmitters are appliances that are utilized to transmit out information as radio waves in a detailed band of the electromagnetic spectrum so as to accomplish a detailed statement require, be it for voice or for all-purpose information. So as to do this, a transmitter obtains energy from a power resource and converts this into a radio frequency alternating current that alters the direction from millions to billions of times per second based on the band that the transmitter requires to transmit in. When this fatly varying energy is passed through a conductor, in this condition an antenna, electromagnetic or radio waves are spread outwards to be obtained by other antenna that is attached to a receiver that repeals the method to come out with the real significance or information.

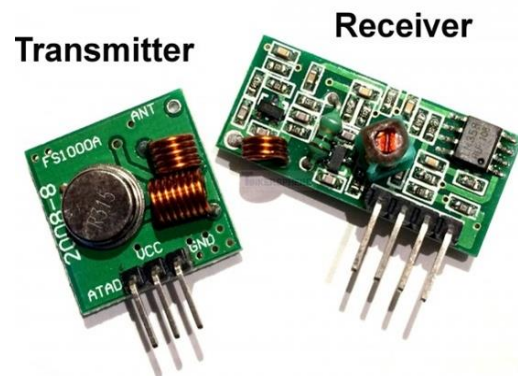


Fig. 4. Transmitter and Receiver

1.5 Receiver

The receiver information theory is the receiving end of a communication channel. It accepts worked out significances/data from the correspondent, who first predetermined them. Moreover, the receiver is designed to integrate the decoder. Real-world receivers like radio receivers or telephones cannot be expected to receive as much information as predicted by the noisy channel coding theory.

2. WORKING OF AUTOMATIC PEN WRITER WITH VOICE SENSOR COMMANDS

Following are the steps of how the automatic pen writer with voice sensor commands works:

1. First we have to write a font style which the user wants.
2. Now the scanner scans the font style and save it.
3. The user can write a document via voice technology. The speech dependent system is used for sensing a voice.
4. The sensor recognize the user's voice and taking as input and start writing it on a page.
5. This sensor is more efficient than speech independent system.
6. We have to connect a transmitter to the user and receiver is connected to pen. When the user start to speaking the words the receiver receives the commands from transmitter and then the voice sensor recognizes the voice and then start writing
7. Another use of this invention is if the user wants to write a new document which is not exist in the hard disk. In that situation automatic pen writer allow this by sensing voice and then write.
8. Another use is the user can search for a document via voice sensor technology and that data can be stored in hard disk.

3. ADVANTAGES & DISADVANTAGES

3.1 Advantages

1. It is transferable
2. It can utilize different kinds of calligraphic pen
3. Useful for writing data/document
4. It is used for fetching documents through voice recognition
5. Stores large amount of data
6. It use automatic writing machine.
7. Easy to transmit and receive the data
8. used for illiterates.

3.2. Disadvantages

1. It stores or scans only text data
2. Battery is needed.

4. CONCLUSION

In this project we aimed that our pen can write the text using voice commands. We are hoping forward as much as we can to satisfy the needs of handicapped people, illiterates, heavy writers who struggled with the inability to write the text. Scanner also plays a role that it can scan the font size of the user and stores it and then writes the style which the user need. Transmitter and receiver are helpful for two-way communication.

REFERENCES

- [1] J. Chapran , "TASK-Related population characteristics in hand writing analysis" ,IETDL Transactions on Electronic Engineering , Vol. 2,No. 2,pp. 75-87, 2008.
- [2] katrin Franke," Ink Texture Analysis for Writer Identification", IEEE Transactions on Production Systems and Design Technology,2002.
- [3] Marius Bulacu ," Text- independent Writer Identification and Verification Using Textural and Allographic Features, Vol. 29, No. 4, pp. 701-717, April 2007.
- [4] Alessandro Vinciarelli," Offline Recognition of Unconstraint's Handwritten Texts Using HMMs and Statistical Language Models", IEEE Transaction on Pattern Analysis and Machine Intelligence, Vol.26, No. 6, pp. 709-720, June 2004.
- [5] Alain Biem," Minimum Classification Error Training for Online Handwriting Recognition", IEEE Transaction on Pattern Analysis Machine Intelligence, Vol. 28, No. 7, pp. 1041-1052, July 2006.
- [6] Nilo Lindgren," Machine recognition of human language", IEEE Transaction on Part 1-Automatic speech recognition, pp. 114-136, March 1965.
- [7] Tal steinherz," Offline Loop Investigation for Handwriting Analysis", IEEE Transaction on Pattern Analysis and Machine Intelligence, Vol. 31, No. 2, pp. 193-209, February 2009.
- [8] Nilo Lindgren," Machine recognition of human language", IEEE Transaction on part-3-Cursive script recognition, pp. 104-116, MAY 1965.
- [9] Cecile Paris," An Interactive Support Tool for Writing Multilingual Manuals", IEEE, pp.50-55, JULY 1996.