

PRODUCT LABEL READING FOR BLIND PERSON

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ABSTRACT

In world there are 314 million people are visually impaired and blind which was released by "World health Organization" in 10 facts regarding blindness. We know that reading is very essential in today's society. Printed texts are everywhere in form of newspapers, reports, product packages, instruction on all medicines, etc. There are few devices that can provide good access to common hand-held objects such as video magnifiers, screen readers and optical aids. The ability of people who are blind or have visual impairments to read printed labels and product packages will enhance independent living and foster economics and social self-sufficiently.

Keywords: Product, Blind, Reading

1. INTRODUCTION

Reading is very necessary in today's society. Today, there are already some systems that have some promise for portable use, but they can not handle directly product labelling. Hence we introduce portable product reading using barcode reader to help blind people identify different product in an extensive product database can enable users who are blind to access information about the products through earphones. The system is designed to detect barcode through barcode reader from certain distance and is pronounced through voice. But the big limitation of our project is that it is very hard to find the position of barcode on the product and to correctly locate the barcode reader at the barcode.

1.1 Block Diagram

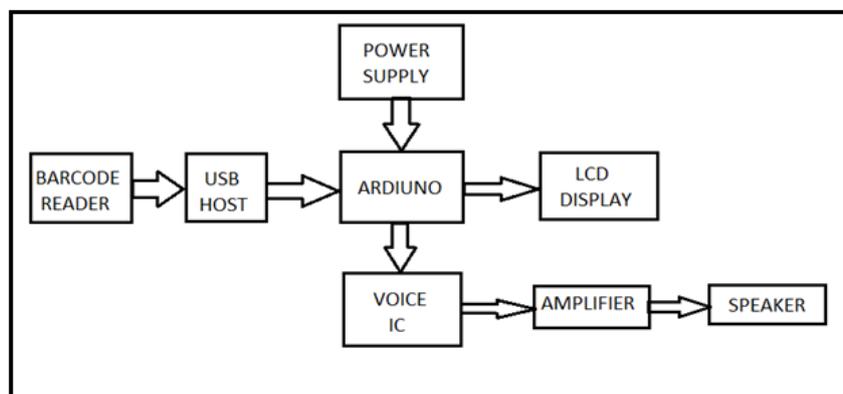


Fig. Block diagram of Product Label Reading For Blind Persons.



This system consist of three main components as:

- 1.Scan the Barcode
- 2.Data Processing
- 3.Audio Output

In above system , first barcode reader scan the barcode.Barcode reader is attached to the USB host.The data processing unit is used for the developing the algorithm,which include following process

- Object of interest detection to extract the object from scanned barcode held by user from complex background..
- Text Localization to obtain text region containing text information and finally Text Recognition to obtain readable codes from text information.

Then the audio output component gives the information to the blind user about the product.A Bluetooth earpiece or headphones with mini microphone is used for audio output.

II.CONCLUSION

This proposed system is easy and helpful for blind persons. The ability of people who are blind to read product label will enhance independent living social self-sufficiency .Thus we are present low cost barcode reader based Product Label Reading For Blind Persons, to help blind persons in daily life.Barcode reader act as main component to detect the label.Then it processed internally and identified product name and the product name is pronounced through the earphones.

III.ACKNOWLEDGEMENTS

It gives us immense pleasure to express our sincere gratitude for constant help, encouragement and suggestions to us for our project report entitled "PRODUCT LABEL READING FOR BLIND PERSONS" Under the guidance of Mr. M.S.Sonavane. We are thankful to him for guiding us through various difficulties and making it look easier.

We would also like to extend our sincere gratitude to Principal Dr. V.R. Ghorpade,BharatiVidyapeeth's College of Engineering and Prof. K.R.Desai, H.O.D.of Electronics & Telecommunication Engineering for their whole support and guidance and their keen interest during the process of our project. Without the inspiration and encouragement the completion of project would be a difficult task.

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8th NATIONAL CONFERENCE On 'Emerging trends in Engineering and Technology'

Bharati Vidyapeeth's College of Engineering, Kolhapur (NCETET-2018)



10th March 2018

www.conferenceworld.in

ISBN : 978-93-87793-03-3

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