Navigator For Visually Impaired Person

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01 Introduction

- Globally, At least 2.2 billion people have a near or distance vision impairment. In at least 1 billion – or nearly half – of these cases, vision impairment could have been prevented or has yet to be addressed.
- In another way creating a fusion of sensing technology and voice-based guidance system, products can be developed which could give better results than individual technology.
- The proposed system will be suitable to reduce collision risks by enabling an impaired person to walk outdoors easily. The currently used systems for navigating the visually impaired have several downsides similar to cost, reliance, and usability.

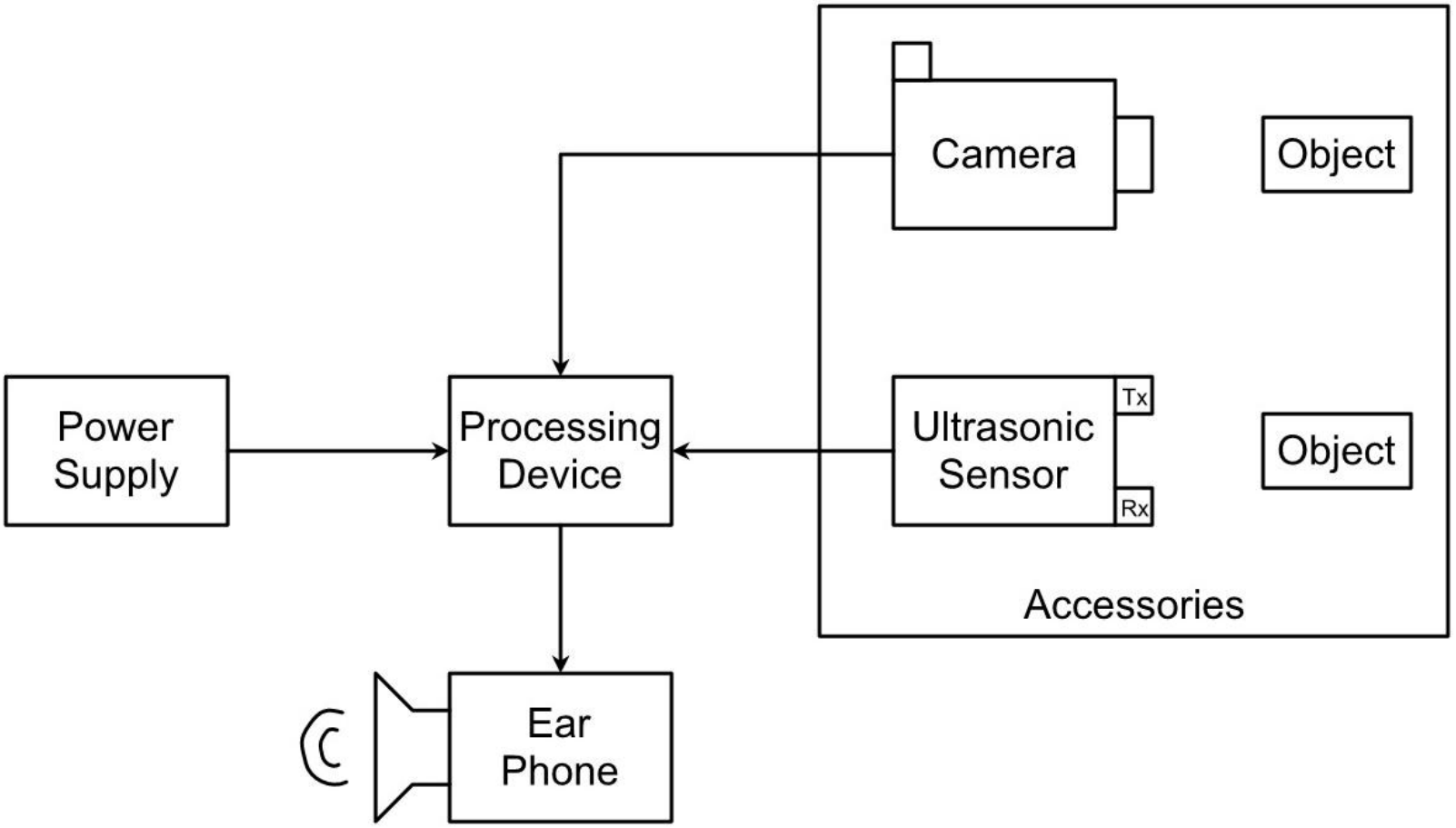
02

Literature Survey

IEEE ID	Name	Proposed Work	Drawbacks
ISBN:978-1-5386-2456-2	Smart Cap Wearable Visual Guidance System For Blind		
ISBN:978-1-7281-1322-7	Smart Assistive Navigation Devices for Visually Impaired People		
ISBN:978-1-5386-9471-8	Smart Eye for Visually Impaired-An aid to help the blind people		
ISBN:978-1-7281-5197-7	Smart Stick For Blind People		

03

Methodology – Block Diagram

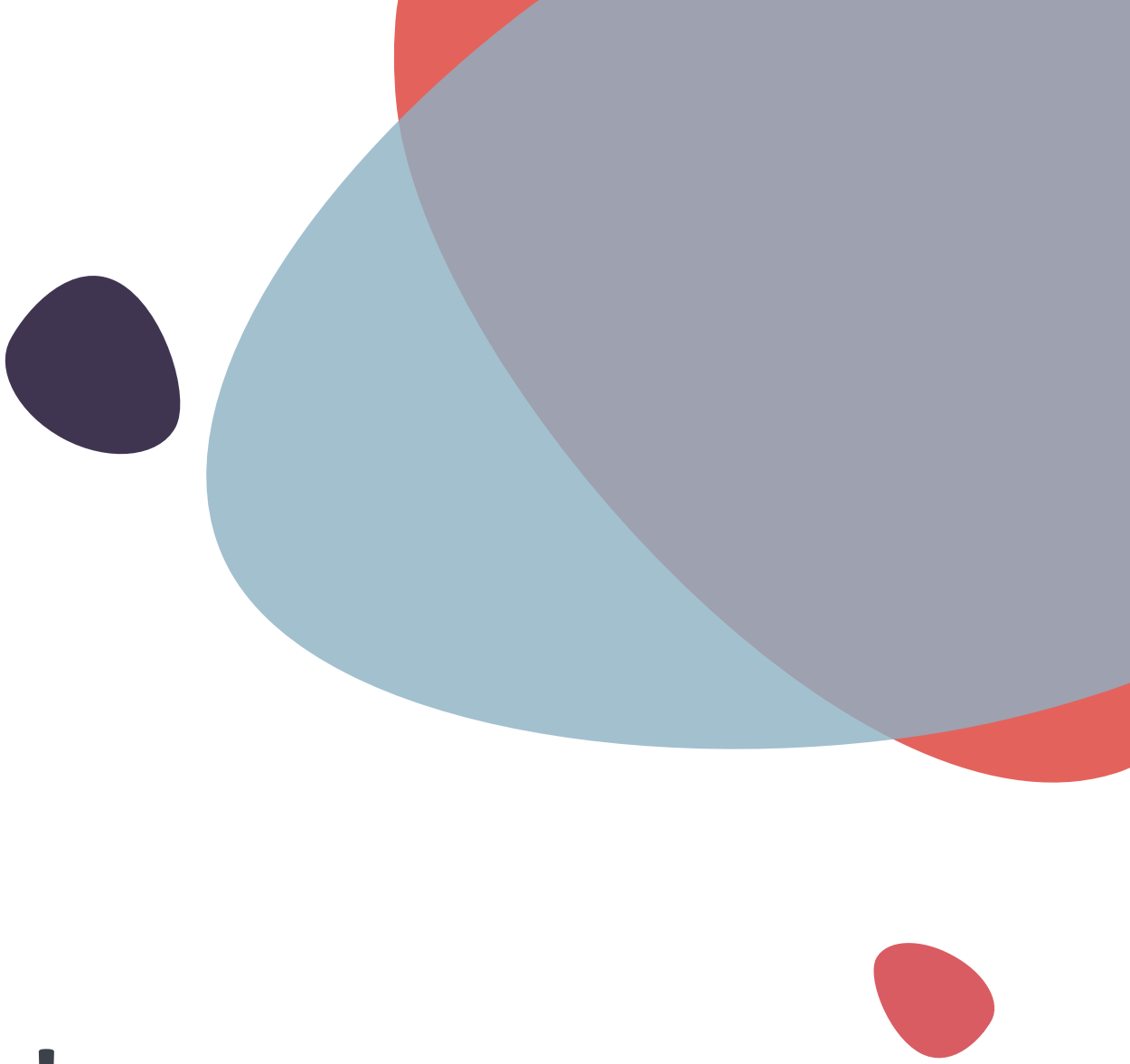


03 Methodology

- The block diagram consists of camera unit, sensor unit, processing unit, power and output unit.
- The camera unit is responsible for capturing objects while the sensor unit provides the distance of object from unit.
- The processing unit plays an important role in detecting and identifying objects (image processing) ,it also receives data from ultrasonic sensor then instruct the user about object identified and distance it is located at (So the user can navigate accordingly).
- The output is provided to user in terms of audio signal using ear phones

04 Future Scope

- As the technology uses image processing for detecting objects. It can be trained to detect new objects.
- OCR feature can be added to technology so that along with object detection the system can become capable of detecting languages.
- The system can make use of GPS for long distances.
- The system can be upgraded to mobile based application.



Thank You!