

DAYANANDA SAGAR UNIVERSITY

SPECIAL TOPICS - 1



OUR TEAM


- ABHISHEK . N
ENG21DS003
- ABHISHEK . A
ENG21DS002
- MANOJ KUMAR.B.V
ENG21DS1001

SMART GLASSES FOR THE BLIND

UNDER THE GUIDANCE OF:

DR.SHAILA S.G,
HEAD OF DEPARTMENT,
DEPT. OF CSE [DATA SCIENCE]
DSU



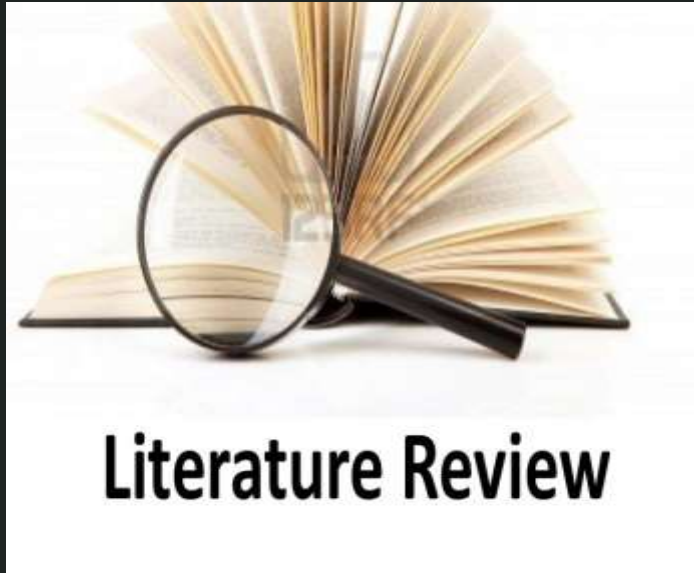
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**PROBLEM
STATEMENT**

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Literature Review



Literature Review

LITERATURE REVIEW



Domain and literature survey

Introduction And Abstract:

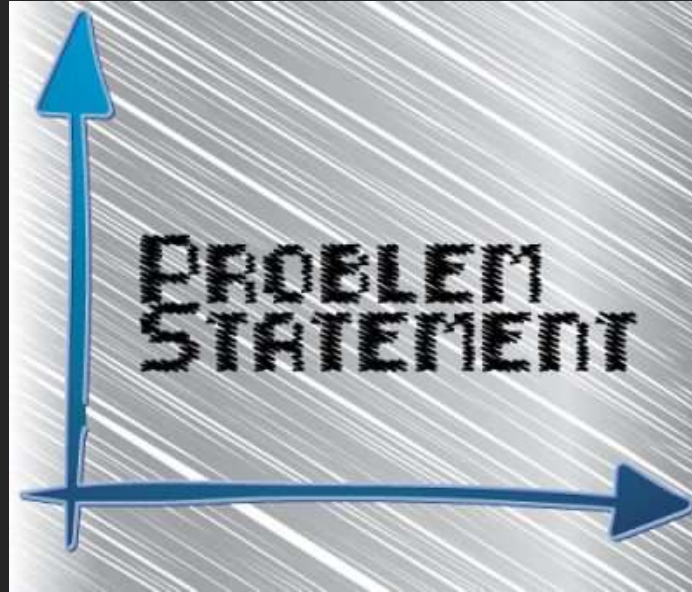
Blind mobility is one of the major challenges encountered by visually impaired persons in their daily lives. Their life and activities are greatly restricted by loss of eyesight. The main objective of the present work is to develop a low cost, reliable, portable, user friendly, low power and robust solution for smooth navigation. This paper (Smart Glasses for Blind People), as meant are the glasses are for visually impaired people. It has an in in-built sensor in it which spreads ultrasonic waves in the direction the person is going by scanning at most 5 5-6 meters of 30° range. As soon as the obstacle is detected, the sensor detects it and sends it to the device which generates an automated voice in the earphone connected to the person's ear.



Literature Review

2. LITERATURE REVIEW :

PAPER	METHODOLOGY	INFERENCE/LIMITATIONS
ROHIT AGARWAL DEPT OF CSE UEM JAIPUR INDIA- 2017(CONFERENCE)	Obstacle detection module fitted in it in the center, a processing unit, an output device i.e. a beeping component, and a power supply.	less accuracy because of only one object sensor
HIMADRI NATH SAHA DEPT. OF EEE IEM KOLKATA INDIA-2019(CONFERENCE)	A smart ultrasonic glasses for blind people	distance greater than 3 meter then it not sense, if distance less than 300 cm then it sense and create sound.
X. Chen and A. L. Yuille, International Advanced Research Journal in Science, 7.105Vol. 9, Issue 4, April 2022	Smart Assistance for BLIND People-A Camera is used to capture the live images. OCR is used to recognise text from the image. TensorFlow tool is used for classifying the object.	HIGH COMPLEX DESIGN
SALEEM S , AKASH C , VIJAYBABU , VINAY, ASSISSTANT PROFESSOR, DEPT OF ECE, K.S. IT, India -2022(IEE CONFERENCE)	ultrasonic sensors for detection of obstacles in the way of blind man, a buzzer to give the sound as per the direction of the obstacle from the man, a central processing unit comprising of Arduino NANO	simple design but Not suitable for people who are completely blind(100%-blind)



PROBLEM STATEMENT



Problem Statement

- ❖ A cost friendly gadget that can be a THIRD EYE and a helping hand for the blind in their everyday activities

Objective:

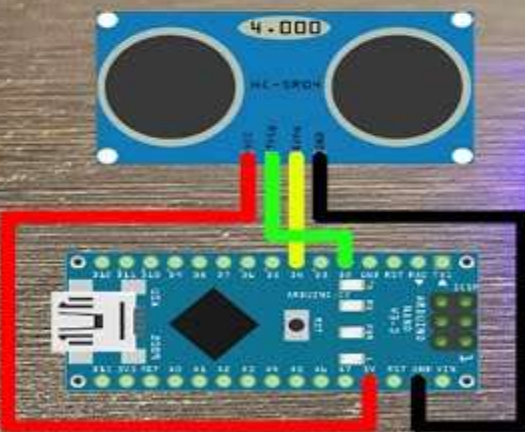
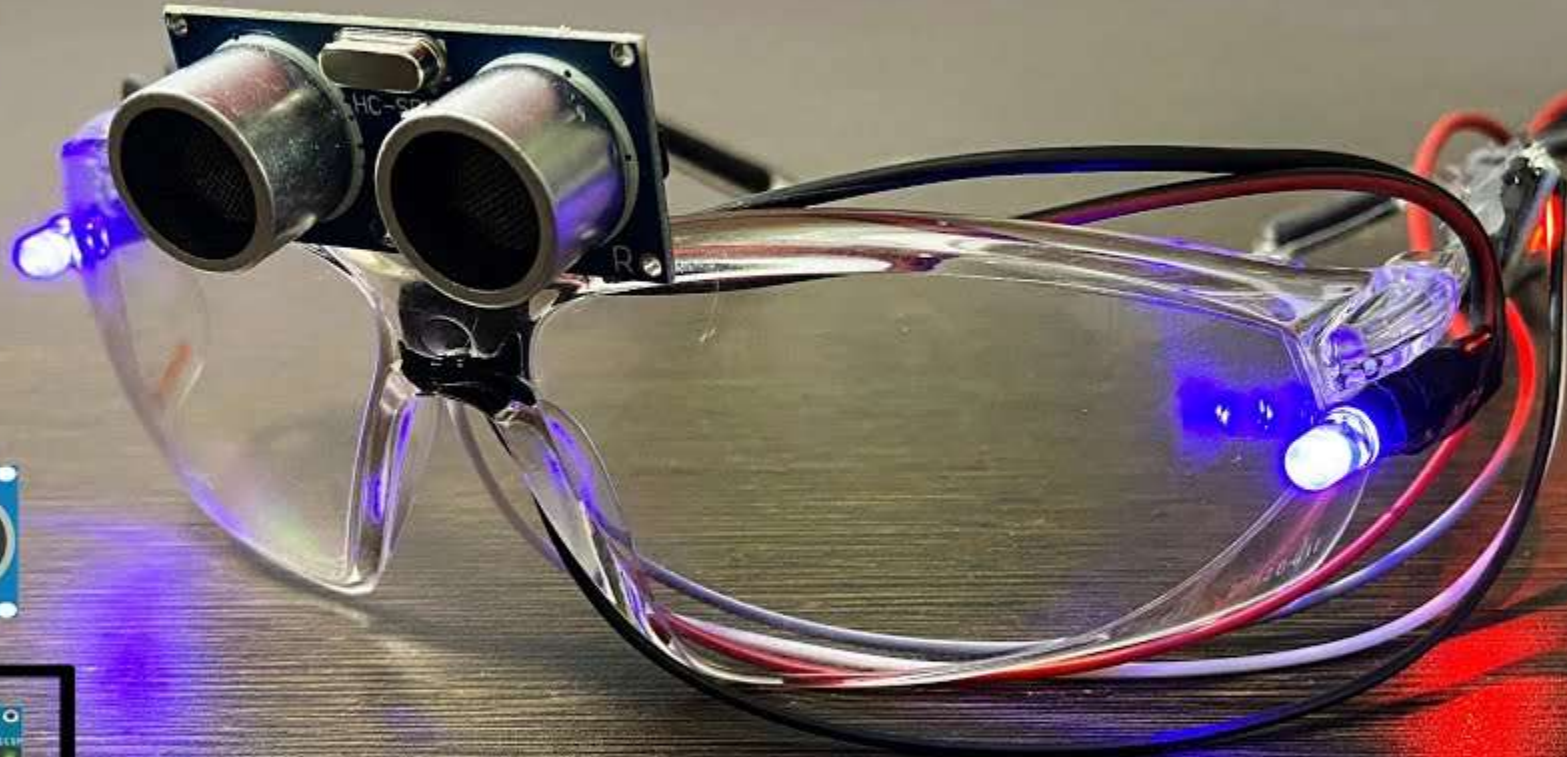
- ❑ The main objective of our present work is to provide a reliable, cost effective, low power solution for a blind people which would help them to move almost like any other normal pedestrian.
- ❑ The cost of this system makes it affordable for the majority of the society which in turn an effective device for them to spend on, just for once and assures wonderful travel guidance for them



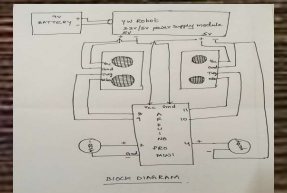


DESIGN

SAMPLE DESIGN



SMART GLASSES

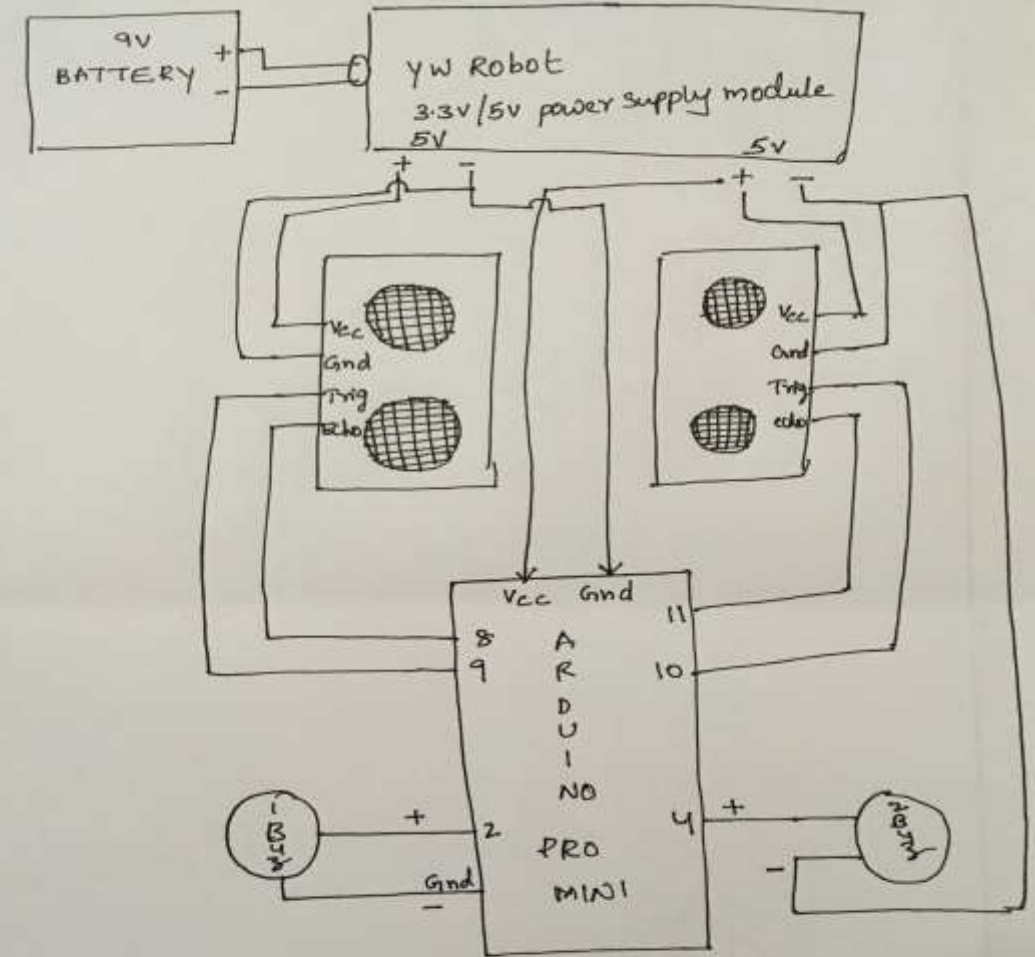


COMPONENTS USED:

- ✓ WEARABLE EYEGGLASS-1
- ✓ ULTRASONIC SENSOR
- ✓ JUMPER WIRES
- ✓ ARDUINO PRO MINI
- ✓ BUZZERS
- ✓ BATTERY
- ✓ CONNECTING WIRES
- ✓ 5V POWER SUPPLY MODULE



CIRCUIT DIAGRAM USED IN OUR PROJECT:



BLOCK DIAGRAM



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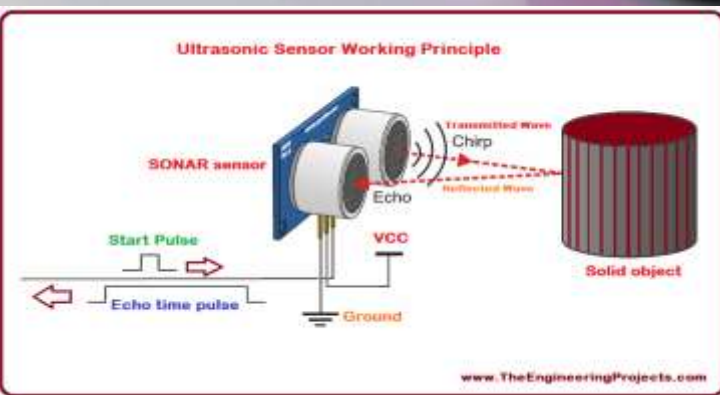
PROPOSED METHODOLOGY

PROPOSED METHODOLOGY

Working Principle

Ultrasonic Sensor is a transducer which uses the physical characteristics and various other effects of ultrasound of a specific frequency which may transmit or receive t ultrasonic signal of a particular strength.The system mainly lies on the principle of Ultrasonic Range Finding sensor It works on 40 KHz ultrasonic sound wave which when triggered by its transmitter module, its receiver module receives back the echo of the triggered signal, having a sensing angle 30°

Working Block diagram



Conclusion:

- ❑ ACCURACY LEVEL EXPECTED TO ACHIEVE WOULD BE 94% FOR OUR PROJECT
- ❑ These devices can be reached out to the needy with the help of the government and NGO's

Thank
You

