

OBJECTIVE

Our objective is to make a device for the blind people which will replace the stick they have to carry around. Not only will it replace the stick but also help the blind people in many other ways in their life.

ABOUT THE DEVICE

The device will consist of cameras attached to the spectacles. These cameras will be connected to a device containing battery, processor and storage. The processor will process the image from the camera and give an audio signal to the person through earphone.

COMPONENTS

1. Raspberry Pie – Rs 4000
2. Raspberry Pie Camera Module –Rs 2500*2
3. Case for Raspberry Pie –Rs 500
4. Power Bank for Raspberry Pie –Rs 700
5. Earphone-600
6. Spectacles-500

Total Budet-Rs 12300

PLAN OF ACTION

WEEK 1

1. Learn how to use a raspberry pie.
2. Learn how to use Linux.
3. Learn about depth perception.

WEEK 2

1. Learn image processing.
2. Learn how to convert text to audio.

WEEK 3

1. Develop an interface to enable the user to use the product.
2. Write the code to convert text in the image to audio.

WEEK 4

1. Write code for object detection using image processing.
2. Implement depth perception using two cameras.

WEEK 5

1. Develop the audio output system.
2. Make the final product.

WEEK 4

1. Test the final product and make the necessary modifications.

MOTIVATION

<http://www.orcam.com/>