



PORTABLE BRAILLE

Key resources:

The key components present in the product are Camera module, Micro processing unit and miniaturised actuators. Customised boards reduce the size and cost of the product drastically. Micro actuators are harvested from obsolete dot matrix printer heads which are of negligible cost. Collaborating with e-waste management organisations like Dell & Goodwill to get easy access to the printer head.

Value propositions:

- Similar Braille readers existing in market is at least 15-20 times costlier than this product (\$2000 \$10,000). Those Braille readers are like e-braille books and can be used only if the content is preloaded unlike this product which captures images of any text and actuates them in Braille.
- Highly portable in nature, hence suitable for everyday usage.
- Large scale manufacturing of this product helps to reduce e-waste(obsolete dot matrix printer head)

Cost structure:

Micro processing unit (Rs.2000 – 3000), Camera module (Rs. 2000 – 3000) and Power source (LiPo battery – Rs. 1500)

Future work:

- This project has high scopes to become a marketable product as it has a big impact on the day to day lives of the blind people. Hence this product can be commercialized by associating with start-ups/companies like Forus health and GE Health care.
- Addition of other features like face/object recognition and feature to store ebooks can make this product a personalised assistant for visually impaired people.