Motivation

One of the greatest benefits of the internet has been its potential to increase social inclusion for marginalized and disenfranchised populations. However for the visually impaired, interaction with the web has been limited due to the visual nature of the web. There have been many advances in the way of screen readers and Braille translators which automatically interpret the text on the screen for the user. However, in the case of images there is still a long way to go. Alternative text for images is one option, but there is evidence in the literature that suggests that it is not used often and is inadequate when it is used. Therefore it has become our objective to find a way to covert images on the web to a tactile graphic generation experience.

Audience

The primary audience for this project is the blind and the visually impaired. However, by combining touch and sight, this project will has the potential of enhancing the learning experience of those who are more tactile learners. Further, by combining touch and sight, this project will enrich the sensational joy of human minds and thus the benefit of this project does not limit to just the practical but also lends itself to more playful uses that everyone can enjoy.

Deliverable

Our project is going to be a way to convert a 2 dimensional image on a computer screen to a 3 dimensional representation of the image. A computer program will analyze a given image, convert it to black and white, and output it to a device. This device will raise pins corresponding to light pixels, and lower pins corresponding to dark pixels, in order to represent a visual image into one that can be felt tactilely.