

GuideDog

Mobile application for the visually impaired

Introduction

Smart phones have become increasingly powerful in terms of functionalities and features they offer. However these advancements in smartphones have never benefitted the visually impaired people. Considering the fact that approximately 285 million people across the globe are visually impaired (check - <http://www.who.int/mediacentre/factsheets/fs282/en/>), 'Guide Dog' android application targets at making smart phones easily accessible to the visually impaired population.

Application

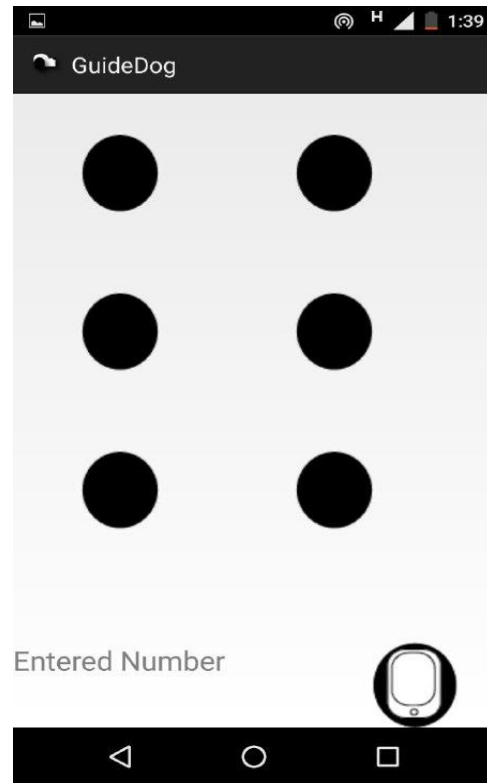
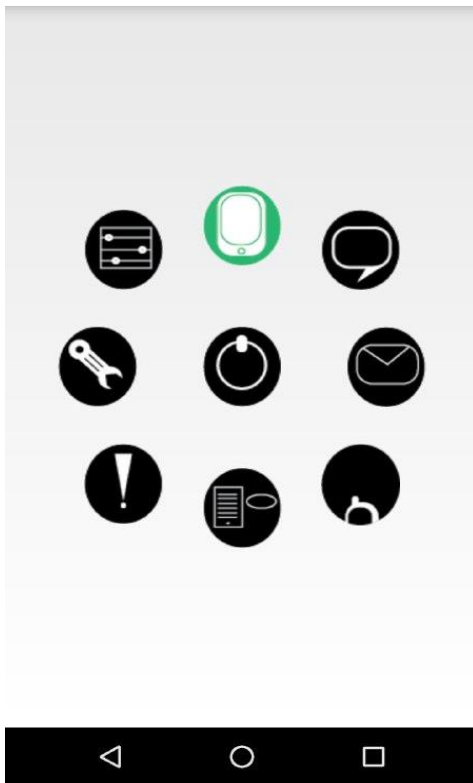
The primary objective of 'Guide Dog' android application is to create a fully functional application launcher using which the visually impaired people can use smart phones with ease. The launcher is directly opened each time the phone is unlocked and navigation to different sections is provided by smart gestures in favour of the visually impaired.

[screenshots from the real app, because I started working on it as a personal project.]



Features

- 1) Virtual personal assistant backed by Wolfram Alpha by which the user can also look up for any information.
- 2) Sending an SOS message to important people(relatives/friends) in occurrence of an accident detected by accelerometer.
- 3) The app can house a lot more features like calculator, ability to set alarms in a user friendly way, getting instant location and weather updates, mp3 player, NFC reader and navigator by which the user can get directions from one place to another etc.
- 4) OCR (optical character recognition) by which the app reads out the text pointed to it by the camera which will help the user in reading boards, medical descriptions etc.
- 5) The entire app will voice assisted and the user interface is specially designed for the visually impaired people by use of gestures and voice input.



[screenshots from the real app, because I started working on it as a personal project.]

Team Members

- Sarath Vadakkepat [current SEAS student]
- Sujith Vadakkepat [India]

Cost:

- No cost involved since the product is a pure software application.

TimeLine :

Month 1 - Development of complete application

Month 2 - Testing with non visually challenged people

Month 3 - Testing with visually challenged people [target user base]

Month 4 - Review of comments and feedback and implementation the same.

Month 5 - Completion of the mobile application.