

ABSTRACT

Five senses is an important part of body. If there is one of part which can't do the function well, It will make people slow. Actually, Not all of people have a perfect body. One of them is blind people. They can't see everything. It makes them can not do everything alone. But they have another ability to do something, especially their ears. Based on that fact, I want to make an application that can produce voice. For helping blind people know information price of product, I will make barcode scanner with voice interface.

This barcode scanner is based on android. First of all, when users open the application, camera and scanner will be opened automatically. Then, after finding the barcode and capturing it, system will search the database automatically. When data is found, system will download voice recorder based in barcode data and play it on user's handphone. So, user can hear the information of the product.

The result from this final project is scanner barcode which can be used to help blind people identify a product by the voice recorder. Scanner can be used in 0° until $\pm 15^\circ$ and $\pm 165^\circ$ until 180° for the opposite position. The nearest product can be captured when all the body of barcode fits in camera. Besides, the longest distance which can be captured, it depends on the barcode dimension. Based on reality, accuracy of this application is 92%. Then, 8% failed because of mobile network in edge area.

Keywords: Android, Scanner, Barcode, Voice Interface