

## ABSTRACT

A blind people cannot see and get some difficulties to shop in supermarket. In the previous research <sup>[1]</sup> it has been made an application which help blind people to know price of some products. The application is a system to read barcode with voice interface based on android system. This system can be well applied. But it can't detect barcode location. So the blind people still get some difficulties to take barcode image.

In this final project was made a system which can detect barcode location. This system will fulfill the previous research. The image get greyscaling and histogram equitation for making sure 0 dan 1 value. Then, system took threshold value from the picture by using otsu method. Threshold value is used to prevent image from noise. After getting the best image, barcode locator system detect location by making angle as a barcode characteristic. All image which not detect as a barcode is noise. Then image is crooped and the result is just a barcode image.

The result from this final project fulfill the previous research. The system can be used 7 cm long for taking the image by 83.3% accuracy system.

**Keywords:** *Android, Histogram Equalization, Otsu Thresholding.*