# ABSTRACT

Along with the development of the era, the development of technology for image processing can be applied in all fields. False in the field of industry useful as an automatic scanner of products on the production. For marketable and unfit products.

In this final project I will create a prototype color detection that will be implemented on Orange Pi using image processing. Color image processing method is thresholding. In this Final Project will be made the implementation of color detection and to run on mini computer Orange Pi using OpenCV Library. In this Final Project design and implement color detection on Orange Pi and OpenCV Library.

The results of this final project implementation, The lighting system affects the system to detect colors and shapes. The color space that matches this system is HSV. The success of the system to detect color by 100%. The success of the system to detect shapes by 66%. The average time the system detects the colored object on the system is 3.4 seconds.

**Keywords:** Digital image, color detector, OpenCV, Orange Pi