ABSTRACT

Lime yellowish green indicate the fruit is ripe, and will be a rotten turn brown. Ripe fruits are round to a round diameter ± 3-6 cm. Fruit skin thickness ± 0.2-0.5 mm and its surface has many glands. Computer vision is used to identify the image, processing, and coverage of the entire decision-making. So that involves a lot of computer vision techniques of digital image processing.

In this TA computer vision technology is used to detect the maturity and sorting a lemon. Computer vision will recognize a ripe lemon by recognizing differences in color (RGB-Hue) lemon using the camera. A camera is mounted permanently on the controller the way the fruit so easily used to detect the maturity of the lemon. After the detection by the camera, a selector that is placed at the end of the conveyor, used to sort out the lemon into 2 categories, that is ripe and rotten. From the design, realization, and testing of tools to recognize the success of the experimental results obtained for 80% of ripe fruit and rotten fruit dampen recognize the success of 70% in order to obtain maximum results need to be supported by setting the room lighting is kept constant.

Kata kunci: digital image processing, computer vision, lemon