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Implementation of Ball Tracking Systems in Image Processing Using the Find Contour Method

Implementasi Sistem Tracking Bola Pada Pengolahan Citra Menggunakan Metode Find Contour

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One technology that is experiencing rapid development is digital image processing. Digital image processing is a scientific discipline that studies image processing techniques. The use of image management is increasing and is used in various fields, one of them in the field of robotics can be applied as an object detector. Image management is chosen in terms of detection because it is able to recognize objects and colors quickly. In the field of robotics these advantages are used to control robots to navigate, one example is in soccer robots. Soccer robots must be able to detect the presence of the ball to find and carry the ball and kick it towards the goal. The ball in the match system has been determined with a definite color, in this case it is orange. Therefore, the robot must be able to detect the orange ball to detect it. In detecting the ball, the parameters produced in this system are the distance of the robot to the ball, the angle of direction of the ball and also the ball according to the color or not. To solve this problem in this study using a method that is processing the RGB image produced by the camera into HSV after which color filtering is done and then finished using the find contour method. The results of this study noted the accuracy of the system in tracking ball objects by 92.87 percent at the distance of the ball to the camera and 88.19 percent at the angle of direction of the ball to the ball. The level of accuracy is due to the position of the camera when shooting.

References

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