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Abstract
The image processing technology in the automatic classification coins will save manpower and improve efficiency, As different value of the coins of different sizes, basically can use this feature to do on the basis of the classification, But if the overlapped coins is happened, it was not as directly from the size of identification feature, which is also the focus of research on my paper. First, the use of image-processing steps to capture the images do color space conversion, Then we apply the edge detection technology capture the contours of coins, then use the treatment on the morphology of the contour shape so dressing.
Processed coins' contour in our analysis of the experimental results, to the entire graphics coins overlap can be divided into the following three categories : (1) no overlapped circle in the graph, (2) have overlapped coins but have without the branches of points in the image, (3) have any branches in the graph, therefore, because of different circumstances should be directed to a process. In this paper we propose a method called statistics of contour radian, used to handling coins overlap situation, This is the use of non-overlapping coins and the coins have lost the differences : that has no contour of overlapped coins are have a more smooth contour, and that has contour of overlapped coins in the overlapped regions are have drastic changes, We use this as a cut off for the position of judge, finally, via the circle hough detection output the result .
Due to the experimental results obtained data show that has not any overlapped coins in the image, recognition rate to 97%, If the case is two coins overlapped in the graph , the recognition rate is 78%; and the case is three coins overlapped in the graph , we present the recognition rate is 76%.
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