1. The method to solve the problem

Firstly, we used the algorithm which is called Canny Edge Detector for detecting the edges in image. Thus, we could find contours that are shapes bordered by edges. After that, we drew ellipses around every contour with best fitting. If the area of contour is nearly equal to the area of ellipse, we considered that contour is a dot of one of the dice. After describing the all dots, we found the faces of the dice based on dots. And then, we described every die as possible as we could by calculating the faces.

Exam figure 1: detected the faces with 5 or 6 dots.

2. System Configuration

Developed by C#,

Used   Framework   emgucv-2.4.0

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