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# Identify fracture, volume air cell in eggs using image processing

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Eggs are used as a major ingredient in human diet due to the important nutrients it contains. The ingestion of contaminated eggs spoils it quickly and becomes a source of contamination, and the diseases are spreading with it. Given that this product is now more packaged and ready to use, it should be possible to identify as much as possible the source of eggs and eggs. The research has been based on the use of image processing techniques and the principle of pre-processing to identify the cracks and volume of the airbag on the egg. In this research, a compartment for photographing was designed and received a light source and received in two stages. Using successive filters and edge detection, both successes were identified. In this research, the detection rate of the crack is 97.78% and for the airbag volume 95.55%, which according to the simultaneous review of two issues is significant.

**Keywords :** Keywords: egg, pollution, pre-processing, trace detection, air chamber volume.

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