AI & Automatic Egg Gender Detection Machine

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Abstract

This project focuses on developing a device for gender chicken eggs for use in poultry farming. The objective is to create an automated egg gender machine. The steps involved in the project are: 1. Designing and developing an automatic egg gender machine using Artificial Intelligence (AI) technology, specifically through deep learning techniques, and the CiRA CORE program. 2. Developing the egg scanner using CiRA CORE. 3. Testing the efficiency of the automatic egg gender machine. The results show that.

The automatic egg gender machine includes an egg conveyor system, an egg-pushing system for sorting by gender, and an egg scanning system using CiRA CORE. The testing results indicated that the machine takes 6 seconds to sort male eggs and 5 seconds for female eggs from the time the eggs are placed on the conveyor belt to when they are pushed into the sorting chute. On average, the machine can sort up to 12 female eggs and a minimum of 10 male eggs per minute. Testing with 120 eggs showed that the device accurately genders 111 eggs, achieving an accuracy rate of 93%.

Keywords: automatic egg gender detection machine