Fruits Quality Inspection System

Designed By:

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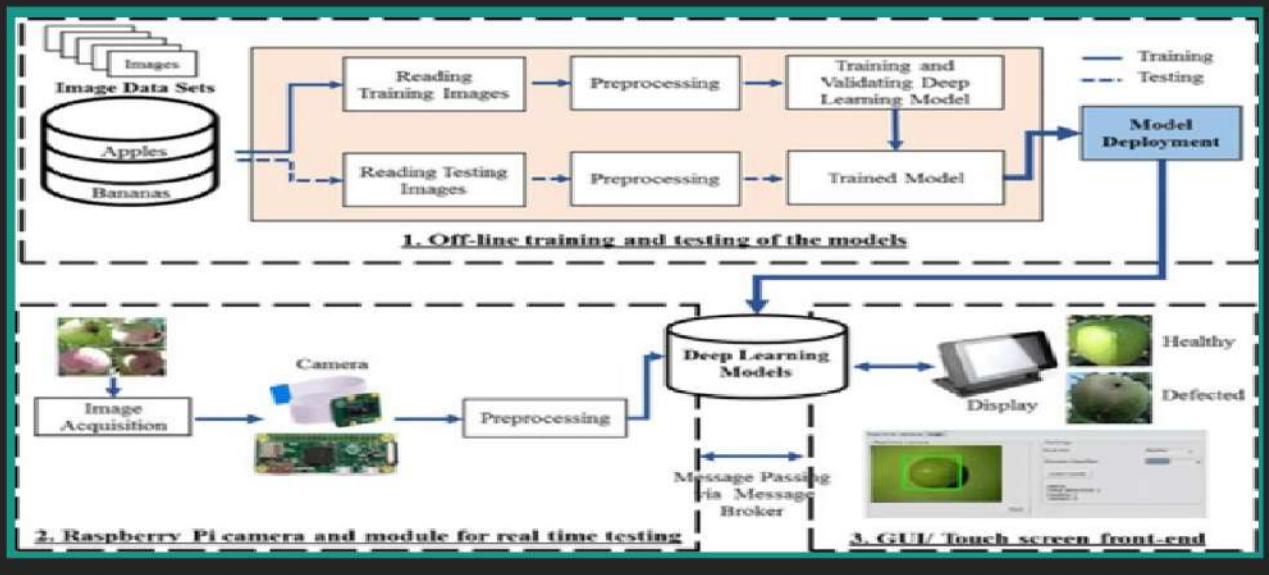
Problem Statement

The fruit industry faces several challenges in ensuring the quality and safety of their products. One of the significant challenges is the time and labor-intensive process of manual fruit quality inspection. Traditional methods rely on human inspectors to evaluate the quality of fruits based on subjective criteria, which can lead to inconsistencies and errors in grading. Additionally, the process is slow and can be inefficient, resulting in delays and increased costs.

Objective

To achieve the best detection model and build a platform for fruits quality inspection system. The project was designed such that the resulting process was automatic. It did not require any human supervision in prediction of the quality of fruit.

Proposed Solution



Results

Model	mPA	Recall	Precision
Yolov8	0.994	0.992	0.986

Tools & Acknowledgments

Conclusion

Fruit quality inspection systems offer a promising solution to the challenges faced by the fruit industry, agriculture and fruit stores and providing a fast, reliable, and accurate method for fruit quality inspection that can benefit growers, distributors, and consumers alike.