

Fruit Sorting Machine

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Abstract: - *The fruit and vegetable market are getting highly selective, requiring their suppliers to distribute the goods according to high standards of quality and presentation. In the last years, a number of fruit sorting and grading systems have appeared to fulfil the needs of the fruit processing industry. Present sorting systems tend to include the development of an electronic weight system and a vision-based sorting and grading unit which also measures size, with a friendly user interface that enables definition of classification parameters, reconfiguration of the outputs and maintenance of production statistics. Some commercially available systems are approaching this objective, but prices are becoming almost prohibitive for small and medium companies that try to maintain competitive levels. Most of the systems we can find in the market are based on special architectures, for instance, DSP-based processors boards, hardware implementation of special purpose algorithm, VME architectures, etc. This is the case of many Spanish fruit packing companies, which are usually small, agriculture products are quite price-sensitive, and they suffer from a hard competitive market like the European Union. The work we are presenting in this paper is the result of a project partially funded by an agricultural machinery company, Previous work done by the same team was directed to integrate existing control and weight systems, but they were limited by the capabilities of that system, trying to reduce costs by using special purpose image acquisition devices designed for the project.*

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