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Development of Dual Source Micro-Controller based Flatbed Dryer for Corn Grains

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Abstract: *The ultimate goal of this research is to close the gap between conventional drying techniques and contemporary agricultural innovations, hence enhancing food security and corn growers' profitability. Future technological advancements in grain drying and storage solutions will be built upon the results of this study. The prototype received a great evaluation due to its outstanding functionality. This shows that the power management system is quite effective at detecting electrical problems and responding to both high and low voltage. This device is highly regarded for both home and business applications because to its adaptability and versatility. It meets user expectations, efficiently attends to particular demands, and offers a secure and hands-on learning environment for power management system knowledge.Users expressed satisfaction with the device's use as well as the availability of resources, including tools, materials, and assistance. Although the tool's capacity to offer worthwhile educational experiences scored marginally lower, there is still room for improvement. Users gave the item good marks for longevity because it showed a strong resilience to external variables, high temperatures, and deformation. The tool's lifespan is guaranteed by this sturdy framework, which qualifies it for extended usage. Users thought the prototype was great since it prioritized safety. The device puts user well-being first by removing sharp edges, staying away from hazardous chemicals, and adding safety features including sufficient protection and unambiguous instructions, which makes it appropriate for educational settings.*

Keywords: Dual Source, Micro-Controller, Flatbed Dryer, Corn Grains

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