

## ***Design Portable Smart Fish Feeder For Freshwater Fish Farming***

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### ***ABSTRACT***

*This research aims to develop a Portable Smart Fish Feeder design to enhance efficiency in freshwater fish farming. The research methods include literature review, tool design, design testing, and stress analysis simulation. The device is designed with a maximum capacity of 50 kg and the ability to be easily moved, enabling users to manage fish feeding more efficiently. Feasibility testing of the design was conducted through a Likert scale questionnaire, showing an approval rate of 84%. The stress analysis simulation results indicate that this design meets the required safety and reliability standards. Furthermore, design revisions were made to improve work safety by reducing sharp or pointed parts on the device. The frame implementation using plate iron and angle iron was successfully carried out, demonstrating sufficient strength and durability in compliance with safety standards. Thus, this research significantly contributes to improving the efficiency of freshwater fish farming processes and provides a foundation for the development of automation technology in the fisheries sector.*

***Keywords:*** *Design, Portable Smart Fish Feeder, Freshwater Fish*