

IOT BASED AUTOMATIC ORNAMENTAL FISH FEEDING SYSTEM WITH TELEGRAM TIME CONTROL

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ABSTRACT

Ornamental fish maintenance has an important role in maintaining the welfare of the aquatic environment. One important aspect of this maintenance is proper and regular feeding. Challenges arise when ornamental fish owners face limited time or the physical absence of providing food manually. This research presents an innovative solution in the form of "IoT-based Automatic Ornamental Fish Feeding System with Telegram Time Control" which aims to overcome these obstacles. The system developed integrates electronic technology and automatic control to provide timely and consistent feed to ornamental fish. This system is equipped with a scheduling feature that can be adjusted to the specific needs of the fish, so that the required nutrients can be met optimally. In addition, there is an integrated proximity sensor to monitor the feed level in the container, providing information on whether the feed is sufficient or needs to be refilled. System control is carried out via NodeMCU Esp8266 which is connected to the Telegram application interface. Interaction via this platform makes it easy for owners to set feeding schedules without needing to be physically near the aquarium. These advantages make this system a practical solution that can increase efficiency in keeping ornamental fish. The trial results showed that the IoT-based Automatic Ornamental Fish Feeding System with Telegram Time Control succeeded in having a positive impact in maintaining the nutrition and welfare of ornamental fish. By combining technology and convenience, this research contributes to the development of more modern and effective fish rearing systems.

Keywords: *Fish Food, NodeMCU Esp8266, Telegram*