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FINAL REPORT OF DIPLOMA PROJECT

AUTOMATIC FISH FEEDER

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ABSTRACT

This project presents Automatic Fish Feeder using Arduino as a controller. The objectives of this project is to create a device that would automatically feed the fish using Real Time Clock (RTC) that can set the time of the device using current time. Another objective is to alert the owner about the quantity of food in container. The dispensed food will be controlled by a motor which situated under the tank. This project using Light Detecting Resistor (LDR) and RTC as an input, while motor, Liquid Crystal Display (LCD) and Light Emitting Diode (LED) as output. RTC is a computer clock that keeps track of the current time to set real time, LED to show the quantity of food in the tank using red and green colour and LCD to displayed real time. It is operated by the RTC assigning a desired time which will be displayed on the LCD and the fish will be fed three times per day setting by user. The quantity of food will release in 5 seconds that have been programmed by the Arduino. Red LED use as an indicator to show the amount of food in the tank. This device will be installed in aquarium to keep feeding the fish on the right time.

ABSTRAK

Projek ini membentangkan automatik Fish Feeder yang menggunakan Arduino sebagai kawalan utama. Objektif projek ini adalah untuk mewujudkan peranti automatik yang akan memberi makan kepada ikan menggunakan Real Time Clock yang boleh menetapkan masa peranti menggunakan masa sebenar. Objektif yang lain adalah untuk memberi amaran kepada pemilik ikan tentang kuantiti makanan di dalam bekas makanan . Makanan yang tinggal dalam tangki dilepaskan oleh motor yang terletak di bawah tangki kedalam aquarium. Projek ini menggunakan (LDR) dan (RTC) sebagai input, manakala motor, (LCD) dan (LED) sebagai output. RTC adalah jam komputer yang menunjukkan masa semasa berdasarkan masa sebenar, LED untuk menunjukkan kuantiti makanan dalam tangki menggunakan warna merah dan hijau dan LCD untuk memaparkan masa sebenar . Ia dikawal oleh RTC untuk memberikan masa yang dikehendaki untuk dipaparkan pada LCD dan ikan akan diberi makan tiga kali setiap hari bergantung pada masa yang ditetapkan oleh pengguna. Makanan akan dilepaskan selama 5 saat seperti mana yang telah diprogramkan oleh arduino itu. Hijau dan merah LED digunakan sebagai penunjuk untuk menunjukkan jumlah makanan dalam tangki. Peranti ini akan dipasang di atas aquarium untuk sentiasa memberi makan ikan pada masa yang tepat dan sesuai.

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