

ABSTRACT

Nowadays ornamental fish more sought in the market because the interest rate on the ornamental fish higher. Due to high demand and the still small farmer's ability to supply the market demand, the ornamental fish cultivation is a very promising business opportunity. Indonesia is a very promising market for the center of import / export or local market exchanges for ornamental fish. However, for ornamental fish breeding is quite difficult because a lot of things to be considered include water circulation, water temperature, and acidity of the water. During these time, ornamental fish breeders still use manual way to do activities. Activities are usually done breeders include replacing the aquarium water, stabilize the pH of the water by injecting pH fluid and regulate the temperature and all of which is a requirement to allow the cultivation of ornamental fish is successful.

At the end of this project will be built a device that control water condition in which using ATMEGA8535 microcontroller as a control for controlling pumps, pH taps and heater. Input sensors for temperature readings for microcontroller is IC LM35 to keep the water temperature in the aquarium ranging from 29-31°C and for reading the acidity using a pH meter is modified so that a reading of the desired acidity levels.

The interface between the tool and the user is a pushbutton which is an input to microcontroller ATMEGA8535 to perform setting in which the control system which includes the setting time, setting the circulation of water every day at the desired settings, the circulation pump discharge from 10L - 50L and water acidity control settings (pH) in the range pH5 - pH9 accordance with the conditions of water for ornamental fish like farmed in which these tools are expected to facilitate farmers in the cultivation of ornamental fish ornamental fish

Keywords : *pH, mikrokontroller ATmega8535, pH meter, IC LM35*