ABSTRACT

Keeping fish is one activity that has been much in demand by society. Generally fish keeper from upper class only has time to see the beautifully of fish but they have no time to maintain it. One important factor in maintaining fish is in terms of drainage, because if the aquariums water not drain in long time, it can makes aquarium water become muddy and smelly. This will affect the health conditions of fish.

In this final project, the authors designed a system of Automation aquariums draining based on mechanics and microcontroller that will control the turn of aquariums water if the conditions of water are muddy and smelly, so it can lighten our work in keeping fish. If the condition of aquariums water is muddy, turbidity censors will work and notify microcontroller that the conditions is muddy. Then microcontroller will give the order to turn aquariums water with the clean water. Likewise, when the condition of water is smelly its mean the acidity of water is higher. Because of that reason, author use ph censors to measure the acidity of water ph. If the conditions is smelly, ph censors will work and notify microcontroller that the conditions is smelly. Then microcontroller will give order to turn aquariums water with the clean water.

This device can fill and drain water from aquarium automatically based on changes of the smelliness and the cloudiness of water. After the measurement being done to light censor and ph meter. Water called cloudy when the detected ADC value are more than or same with 140 and water called smelly when the detected PH value are less than or same with.

Keywords: aquarium, water, microcontrollers, cloudy, smelly