



PROJECT REPORT
THE PROTOTYPE OF AQUARIUM WATER
QUALITY MONITORING SYSTEM

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APPROVAL AND RATIFICATION PAGE



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QUALITY MONITORING SYSTEM

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ABSTRACT

One of the hobbies of the Indonesian people is keeping ornamental fish. Ornamental fish are generally kept in ponds or aquariums. One thing that is very important to note in maintaining ornamental fish in an aquarium is water quality. Dirty water quality can inhibit the growth and development of fish. Factors that cause aquarium water to quickly turn dirty include no water filter or water filter not working optimally, food residue that dissolves in water and makes water conditions change. In addition, the owner does not routinely monitor and change the aquarium water.

From the above problems, a tool is made to monitor the quality of aquarium water for ornamental fish habitats. This system applies the concept of Internet of Things (IoT) and fuzzy algorithms to process data from sensors into definite output. This system uses three sensors, namely turbidity, pH, and temperature sensors that will detect the content in the water. The fuzzy algorithm will process data from the sensor. Where the output of fuzzy is the sound of a buzzer.

After testing, the sensor can work optimally if it is used to detect water quality for a long time, provided that there are no sudden changes in water parameters. The pH sensor has an acute sensitivity to changes in water quality, so errors often occur in this sensor.

Keyword: sugeno fuzzy logic, Aquarium, pH sensor, Turbidity, IoT

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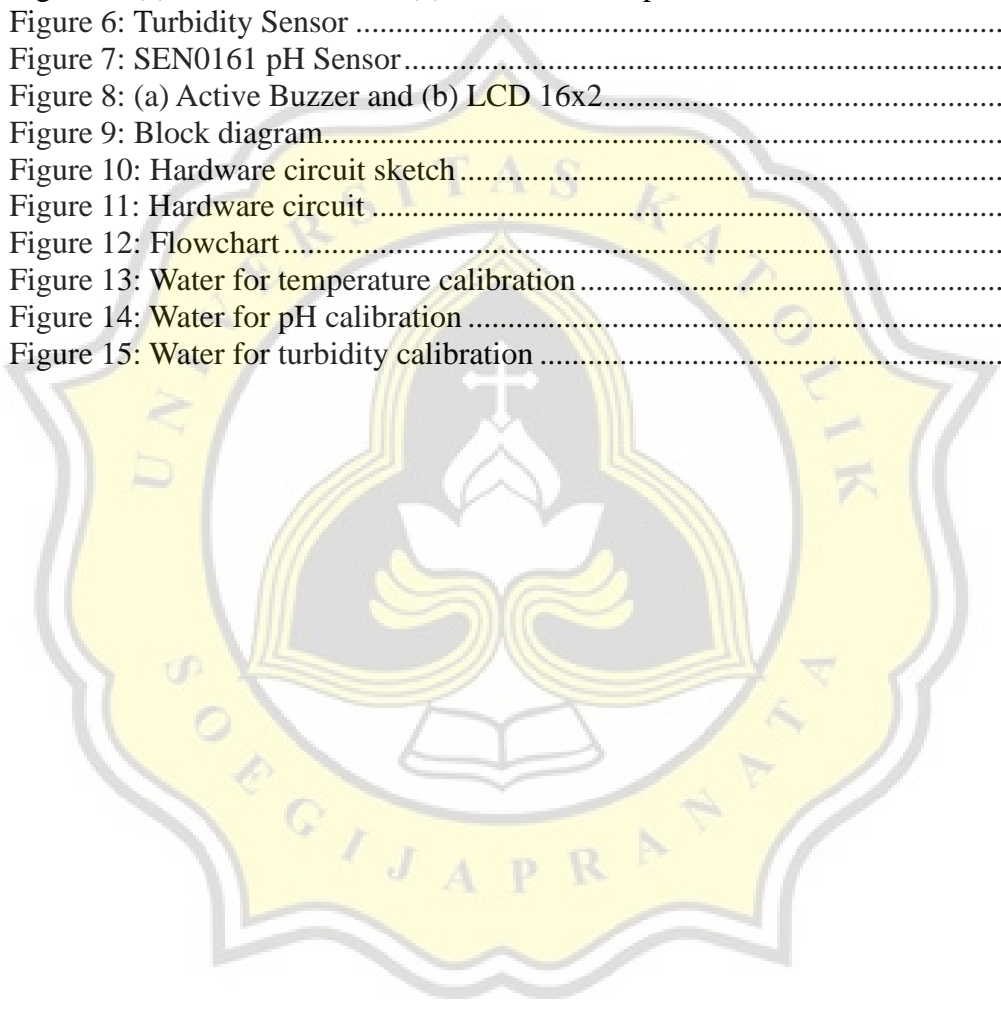
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