

ABSTRACT

Arowana is known as a species of fish with a great price. Maintaining arowana (Scleropages Formosus) is a hobby which is preferred by people from various circles. Arowana enthusiasts or be referred with arowana hobbyist needs to know that maintaining arowana is quite complicated and consumed time. A treatment that must be done routinely is to keep the water conditions and feeding. If the routine is not done in a long enough period of time, it will affect the physical growth of arowana, and for the worst case, it can even cause death of the arowana.

This final assignment research has built a solution in the form of an android application which can control the arowana-breeding. In this system there are some functions that connected to the devices in the aquarium via the cloud service. The controls that can be performed by android applications include seeing real-time temperature of the water, controls the tanning lamp, controls the feeding container, and see a capture image from webcam.

Android applications that have been tested have a pretty good performance for each control and monitor function. This is indicated by the value of the average response time for each function. Checking the value of temperature is 4.45 seconds, Turn on and off the lights is each 42.67 seconds and 41.94 seconds, 39.26 seconds to ignite aerotor and 31.79 seconds to turn off the aerotor, and 31.3 seconds for the control of servo for feeding.

Keywords: *Android, Internet of things, Scleropages Formosus, Arowana*