ABSTRACT

Fish farming is common in Indonesia, some farmers generally use ponds with a large size to carry out cultivation. Large ponds have constraints on feeding due to the size of the pond area. An automatic feed system with An Unmanned Surface Vehicle is the solution for these problems. This automatic feed system will ease feeding because the ship can move according to the specified point. The *Fish Feeder* system that has been embedded on the ship will automatically release fish feed when the ship is at the *waypoint*. This automatic feeding ship uses *a load cell* sensor as a measure of the accuracy of the weight of the feed to be thrown and two servo motors as a feed production system. The feed tank has a maximum capacity of 7.5 liters with hull buoyancy worth 0.414286 cm/ kg. The test was carried out by placing 4 *Waypoint*s with a total distance of ±50 m. The results of this PWM 1600-1700 test are the most effective and efficient PWM. The average value of the *load cell* sensor result for signal output is 98.99%. Fish feeding on unmanned surface vehicles is expected to bring technology for farmers to facilitate feed automatically.

Keywords: *Fish Feeder, Cultivation, Load cell Sensor, Servo Motor.*