ABSTRACT

Fish cultivation is a business that is already widespread in the world. Especially in Indonesia, Fish cultivation spread in various places and conditions, there are in the lowlands, hills, mountains, rivers, reservoirs, until the sea. This indicates that the fish sales market in Indonesia is very widespread, and wide. But many fish farmers are still suffering from material losses. Among the causes of such material losses as an example are stocks of fish feed quickly depleted due to inappropriate feeding duties, as well as irregular feeding, causing many fish in cultivation to die. Fish feed suppliers device is one of the solutions to solve this problem. By using a microcontroller Arduino Uno R3 as the central control system of fish feed suppliers device, and assisted by some supporting components such as RTC (Real Time Clock), LCD (Liquid Crystal Display), Keypad 4x4, Buzzer, Ultrasonic Sensor, and Servo Motor, there was a fish feed suppliers device that could supply fish feed with the appropriate amount of dose, and regular feeding frequency. This device works by dropping the fish feed into the pond, where the supporting component is the LCD that displays the menus, and then RTC will work by calculating the time as much as has been programmed, and when it has been up to the time of the program then Servo Motor will open the fish feed output area, so the fish feed will fall into the pond and Servo Motor will close again in accordance with the duration of time that has been programmed. Based on the test result, got error < 5%. The ability of the tool to drop fish food into the pond by testing 5 pieces of data, and conducted as many as 10 times experiments on each data resulting error 1.93159%, 2.77268%, 1.82484%, 3.14935%, and 3.04862%.

Keywords : Fish cultivation, fish feed suppliers device, Arduino Uno R3