

ABSTRACT

Caring a fish in a holiday time is a self trouble for the guppies fans. Because at that period many people want to go outside and forced to leaving his fish for a while. Then an automatic feeding device can help that. This device is conditioned so the feed will fall into the aquarium at some period to make fish feeding easily with take advantage from the mechanic and microcontroller function.

Microcontroller take part as timer setter for a draught vessel turnover. Microcontroller connected with an RTC (Real Time Clock) as a fish feeding time adjustment and a real time. This automation device has two parts, that is main vessel has function as a fish feed backup place. With take advantage from the mechanic system, draught vessel can turnover with motor servo assistance which will activated the surface of fish feeding draught which shaped as a wheel, tide densely with main vessel as a fish feed backup place. Motor servo will activated that draught as a hour hand turnover so fish feed will fall into the aquarium and draught will get back at first. This device connected with limit switch which used for stopping motor servo turnover, and buzzer which has function as a sign that the fish feed in the main vessel was empty.

Based on experiment was done, the automation device can't work for the big size of fish feeding, because of the mechanical limitation and the shape of the device so that several fish feed fall into axis and its make the motor doesn't work well. Turnover velocity which determined in this automation device taken from PMW velocity, that is D8 hexadecimal or 216 decimal. As for the time that the wheel needed to get back at the first position is 160ms after touched with limit switch. Between first turnover and the next turnover, determined delay 5 second for filling the vessel back.

Key Words: microcontroller, RTC, servo motor.