CHAPTER 1
INTRODUCTION

1.1   Background

The advancement of technology today is growing very rapidly and influential in the manufacture of sophisticated tools, namely tools that can work automatically and have high accuracy so that it can simplify the work done by humans to be more practical, economical and efficient. The development of these technologies has encouraged human life for things that are automatic. No exception to the activities of maintaining fish in a pond that can use tools as a helper for ease of use. However, because of other activities or activities it is often an obstacle when feeding the fish in the pond. Constraints when a person has to travel far to take a long time to days, will certainly think about how the conditions of the fish are kept and how to regularly feed the fish continuously or scheduled without having to interfere with daily activities .

To overcome this problem, the researchers developed a tool for feeding fish automatically. With the existence of this tool, the provision of fish feed can be done according to schedule and effectively because the fish keeper only needs to monitor the feeding process by the equipment made and set the feeding dose.

This project uses Arduino Uno as a microcontroller, Sensor HC-SR04 to detect feed capacity available on reservoirs, two servo to assist the process of discharge of fish feed and the process of launching fish feed. This project starts with Arduino Uno controlling the movement of the servo as a valve opening and closing fish feed and directing fish feed that comes out and is accommodated in a container, which will later be thrown back with the help of the servo motor associated with the container.

The results to be obtained from this project are automatic feeding according to the feed dosage and the specified schedule. And the available feed

capacity is detected by an ultrasonic sensor so that there will be a notification when the feed stock is running low.

1.2   Scope

Some of the problems that must be solved in this project are:

1. How to design and develop fish feed tools automatically with accurate time using RTC, servo motor and feed dosage settings and available feed capacity information?

2. How to design a mechanical automatic fish feed device so that the servo motor can hold the load of fish feed put in the container?

1.3   Objective

The purpose of this project is to create a tool for scheduling fish feed automatically with the right feeding dose.