UNDERWATER MOTION DETECTOR

Project is presented in partial fulfillment for the award of the

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ABSTRACT

This project paper represents the research, circuit design, mechanical design and arrangement of the underwater motion detector. It will be implement as a sensor for an electromechanical operation, such as automatic life feeder for fishes. The equipment is in small size, water tight and portable.

CHAPTER 1

INTRODUCTION

1.1 Introduction

The underwater motion detector cannot efficiently be designed without knowledge of its fundamental principles and process involved. The fish behaviour must be studied to get the best functioning system.

1.2 Fish Behaviour

Fish have the ability to eat continuously, digest what they need, and excrete the rest. This means it is very easy to overfeed – not the fish, but the aquarium. It is surprising how little food fish actually need. Unlike humans, fish are not fighting gravity or maintaining a high body temperature. Hence, little sustenance is needed to grow and swim around [1].

The fish need a wide range of essential nutrients. Without the right amount of these nutritional "building blocks", fish may cease to grow, lose colour, stop breeding, and become susceptible to disease and, in certain circumstances, might even die. In their natural habitats, fish will feed on a variety of plants; insects or other water-borne live foods, which are generally in plentiful supply and high in nutrients. In the confines of an aquarium, live foods can introduce disease and infestation, and problems of water pollution from high level of fish excreta can cause stress and disease in the fish.