

AUTOMATIC CAT FEEDER BY ARDUINO

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ABSTRACT

The purpose of this project is to create the Automatic Cat Feeder machine by using Arduino. This machine is operated by using Arduino UNO R3 where it acts as a microcontroller or a brain for the machine to be operated. Two transmission will be operated during the operation, which is automatic and manual transmission. The automatic transmission will be functioned automatically where the Arduino has been programmed to act as a timer. So, every the meal time (breakfast, lunch and dinner) the machine will withdraw the food to feed the cat. For the manual transmission, we use a motion sensor which called PIR Motion Sensor to detect the present of the cat. If the cat is standing in front of the machine, the sensor will detect the present of the cat and the machine will withdraw the food. The manual transmission will only function between one automatic transmissions with another automatic transmission. At the same time, the machine will also display the food level in the food storage trough the LCD by using Ultrasonic sensor. Before creating this project, some research from the article in the internet have been made to get some information that can help us to create our project. The simulation has been made by using the Fritzing software. After getting the result from the simulation in the software, we test the connection of the circuit simulation on the breadboard. From the test, the result that we observed is same like in the result from the simulation. Then, we built the hardware of the machine and also install the circuit on it.

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	DECLARATION BY CANDIDATE	
	SUPERVISOR'S APPROVAL	ii
	ACKNOWLEDGEMENT	iii
	ABSTRACT	iv
	TABLE OF CONTENT	v
	LIST OF FIGURE	vii
	LIST OF TABLE	
1	INTRODUCTION	1
	1.1 Background Study	1
	1.2 Problem Statement	1
	1.3 Objectives	2
	1.4 Scope of Work	2
	1.5 Project Contribution	3
2	LITERATURE REVIEW	4
	2.1 Main Components	9
3	METHODOLOGY	30
4	RESULTS & DISCUSSION	36
	4.1 Simulation	36
	4.2 Circuit Connection	37
	4.3 Testing	38
	4.4 Soldering	39

CHAPTER 1

INTRODUCTION

1.1 Background Study

The study that have been conducted for this project is to make sure that the pet will get the proper care. Basically, a proper care towards pets is the needed for them because it will make the pets stay healthy and their life span will become longer. This is because the pet will get their meat on time. They need a good quantity and quality of food to make them survive. At the same time, the pet will be feel more comfortable when they get proper care.

A machine that can feed pet was created to provide enough quantity of food that should be feed to the pets and at the same time the quality of the food can be preserved. So, we decide to create a machine called Cat Feeder by Arduino to solve the pet feeding problems. This machine can feed the cat at home where it is operated manually and automatically by Arduino. In conclusion, the cat will get a proper care, healthy, comfortable with the Automatic Cat Feeder by Arduino.

1.2 Problem Statement

Nowadays, most of pet keepers like to keep their pet at home but usually they do not have proper care and time to feed their pets. There are some pet keepers would like to feed their pet once a day especially in the morning by filling large amount of food for cat to eat it for the whole day. In fact, it can causes wasted food because the large