UNIVERSITI TEKNOLOGI MARA

AUTOMATIC PET FOOD FEEDER AND CONTAINER

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ABSTRACT

This project main idea is to introduces an Automatic Pet Food Feeder And Container empowered by IoT, aiming to enhance the well-being of pets and provide convenience to pet owner. Many pet owners face challenges in maintaining a regular and balanced feeding schedule for their pets due to their busy lifestyles. The project will dispense food as the pet owner have set, give a notification to owner if the big container is low and allowed owner to control the pet feeder from office. The project uses an ESP32, LCD 16x2, servo motor, push button, Blynk application and ultrasonic sensor. By using Blynk application the user can set the schedule for Arduino to dispense the food. Arduino will make servo motor to move and dispense food. The integration of IoT into an Automatic Pet Food Feeder And Container system offers a comprehensive and intelligent solution for pet care. By constantly managing pet eating schedules this system will improves pet nutrition and facilities remote management and contributing to the overall well-being of pets and providing convenience to pet owners. For future plan may focus on the safety by installing camera in the device to monitor the pet.

Keywords—dispense, pet feeder, Arduino Uno, ESP8266, weight sensor.

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CHAPTER ONE

INTRODUCTION

This chapter will provide basic information on how the idea for this project came to be. Background research, objectives, problem statement, scope of work, project significant or contribution, and summary are all included in this chapter.

1.1 Introduction

Pets are cherished members of families, bringing joy, companionship, and unconditional love to human lives. To ensure their well-being and provide for their needs, including their regular feeding schedule. However, the demands of human busy lives can sometimes make it challenging to remember and adhere to these schedules. Fortunately, the advent of smart technology has introduced innovative solutions, and one such solution is the smart pet feeder.

A smart pet feeder is a remarkable device designed to automate the feeding process for pets. By incorporating cutting-edge technology and connectivity features, these feeders offer convenience, reliability, and peace of mind for pet owners. With the ability to set and adjust feeding schedules, as well as control the device remotely using a mobile app, smart pet feeders have revolutionized the way we care for furry friends.

One of the primary advantages of a smart pet feeder is its ability to ensure that the pets receive their meals on time, every time. Busy schedules and unforeseen circumstances no longer need to disrupt their routine. Through a meticulously programmed schedule, the feeder dispenses the appropriate amount of food at predetermined intervals, providing consistency and structure to their daily lives.

Maintaining a healthy weight is crucial for the pets' overall well-being. Smart pet feeders assist in this regard by precisely measuring and dispensing the correct portion sizes. This feature helps prevent overeating, which can lead to obesity, as well as underfeeding, which can result in nutritional deficiencies. With the added ability to customize portion sizes and feeding frequencies, pet owners can tailor the feeding regimen to their pets' unique dietary requirements.

Another noteworthy benefit of smart pet feeders is their ability to bridge the gap between pet owners and their pets, even when they are physically apart. Through a