ABSTRACT

Keeping pets is widely favored by people of various backgrounds and ages, with
cats being one of the most popular animals. As pet owners, one must be aware of
their pets' development and feeding times. However, many pet owners are unable
to continuously monitor their pets due to work or other commitments. This led to
the idea of this research, which aims to create an automatic cat feeder with IoT-
based Telegram notifications. The components used include the HX711 sensor,
ultrasonic sensor, servo motor, LED, buzzer, LCD, and the microcontroller used is
NodeMCU. The goal of this system is to allow pet owners to automate the feeding
process, relieving them from the need to manually feed their pets.

The working principle of this device involves the HX711 sensor detecting whether
the cat's food is empty or not. If it's empty, the HX711 sensor sends a command via
NodeMCU to open the servo motor for 1 second, allowing food from the container
bottle to fall onto the feeding tray with an HX711 sensor underneath. Meanwhile,
the ultrasonic sensor is responsible for detecting if the food supply in the container
bottle is depleted. If it is, the sensor sends a code through NodeMCU to activate the
LED, buzzer, and display "Empty" on the LCD screen. Additionally, the user
receives a notification on the Telegram app when the food in the container bottle is
empty.

References (2015 - 2022)