

INVENTION REPORT

AUTOMATIC PET FEEDER

GROUP MEMBERS:

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REGISTRATION NO : COL/EE/2025/F/024
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INTRODUCTION

In modern society, pet ownership is increasing rapidly, and ensuring proper care and feeding has become an important responsibility for pet owners. However, due to busy work schedules, travel, and other daily commitments, many pet owners find it difficult to feed their pets on time. Irregular feeding can lead to health issues such as overeating, underfeeding, and food wastage.

To address this problem, an **automatic pet feeder system** is proposed. This system is designed to provide food to pets at scheduled times without requiring the owner's constant presence. The feeder uses an **ESP32 microcontroller** to control the system and a **servo motor** to rotate a sliding mechanism that dispenses food from a storage container at programmed intervals.

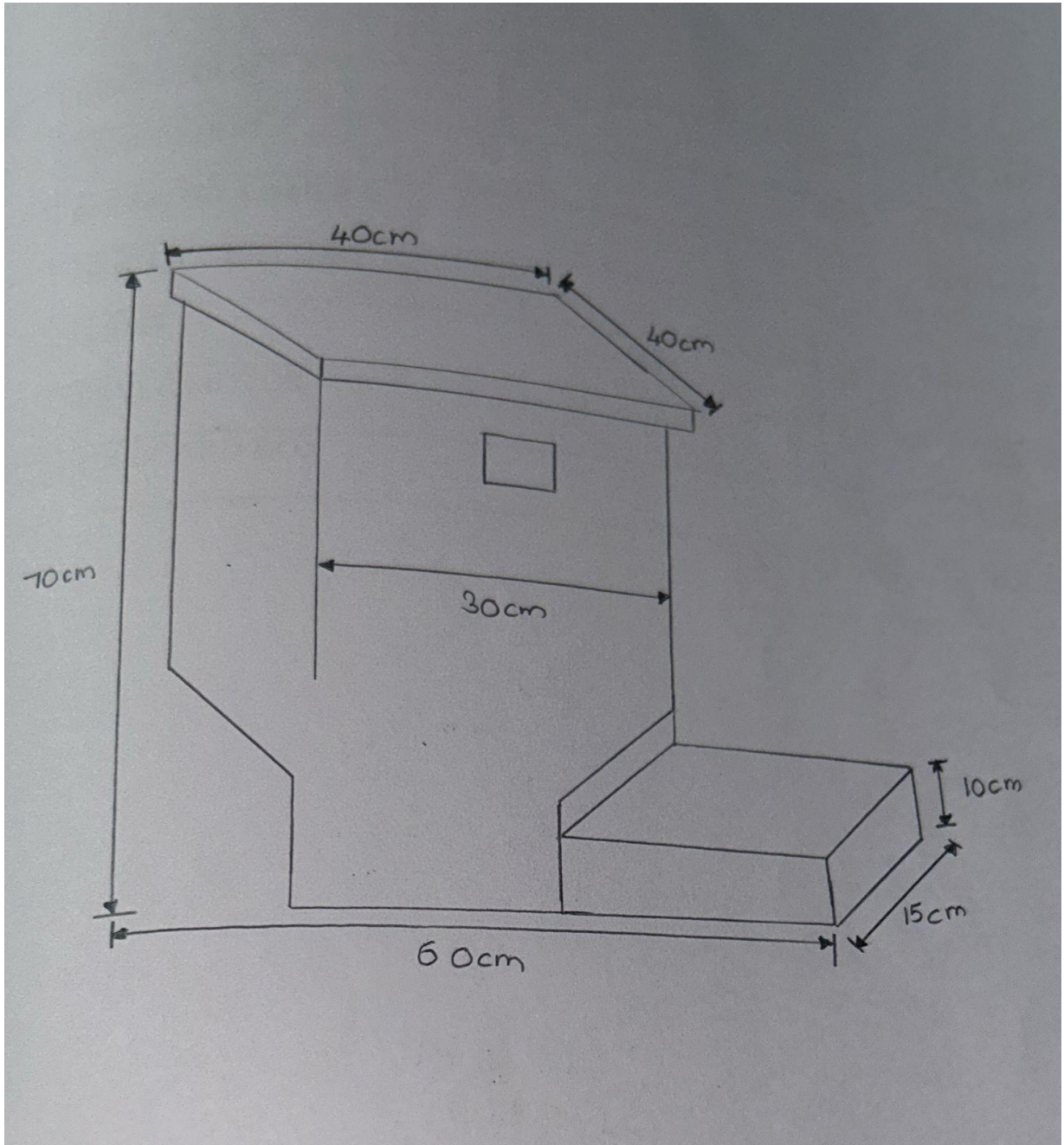
Additionally, the system includes a food bucket where the dispensed food is collected. Any leftover or waste food can be automatically removed to maintain cleanliness and hygiene. This helps ensure pets receive fresh food while also reducing food waste.

In addition, an **ultrasonic sensor** is used to monitor the food level inside the dispenser. When the food level drops below a predefined limit, the sensor detects the increased distance to the food surface and sends a notification to the pet owner. This alert helps the owner refill the food container on time, ensuring that the pet never runs out of food.

ADVANTAGES

- Ensures timely and regular feeding of pets without human intervention.
- Reduces the risk of overfeeding and food wastage by dispensing a controlled amount of food.
- Provides convenience for pet owners with busy schedules or frequent travel.
- Improves pet health and well-being through consistent feeding routines.
- Operates automatically even in the absence of the pet owner.

DIAGRAM



BUDGET REPORT

NO	DISCRIPTION	QTY	PRICE(RS)
01	ESP 32	01	1200.00
02	5V STEP DOWN BUCK CONVERTER	01	250.00
03	18650 LIFE BATTERY	02	560.00
04	ULTRA SONIC SENSOR	01	190.00
05	SERVO MOTOR	02	500.00
06	GLUE STICK	01	470.00
07	SHEET	01	2400.00
08	COLORS	01	300.00
09	PAPER CUTTER	01	150.00
10	TAPE	01	150.00
TOTAL (RS)			6170.00

Supervised by :-

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Date

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Signature