SMART PET FEEDER MACHINE

Guided By :
DR. K. LALITHA

PRESENTED By :
FELLAH. A(22AI014)
OVIYA SHRI. K(22AI032)
PRADEEPA. P. S. R(22AI035)

TEAM NO: 12

22AIC14 - INTERNET OF THINGS AND ITS APPLICATION

Abstract

- The Smart Pet Feeder Machine automates pet feeding, ensuring timely and accurate food distribution.
- Utilizes IoT technologies for remote monitoring and control.
- Addresses challenges like inconsistent feeding schedules and portion control.
- Ideal for working professionals or frequent travelers.
- Features precise portion measurement, remote accessibility, and automated operation.
- Aims to enhance convenience and care in pet ownership.

Objectives:

- Design a smart feeder that ensures pets are fed on time with accurate portions.
- Integrate IoT for remote control and monitoring.
- Provide a user-friendly interface for feeding schedules and notifications.
- Use sensors for precise food measurement.
- Automate the feeding process to reduce manual effort.
- Enhance pet care through innovative technology.

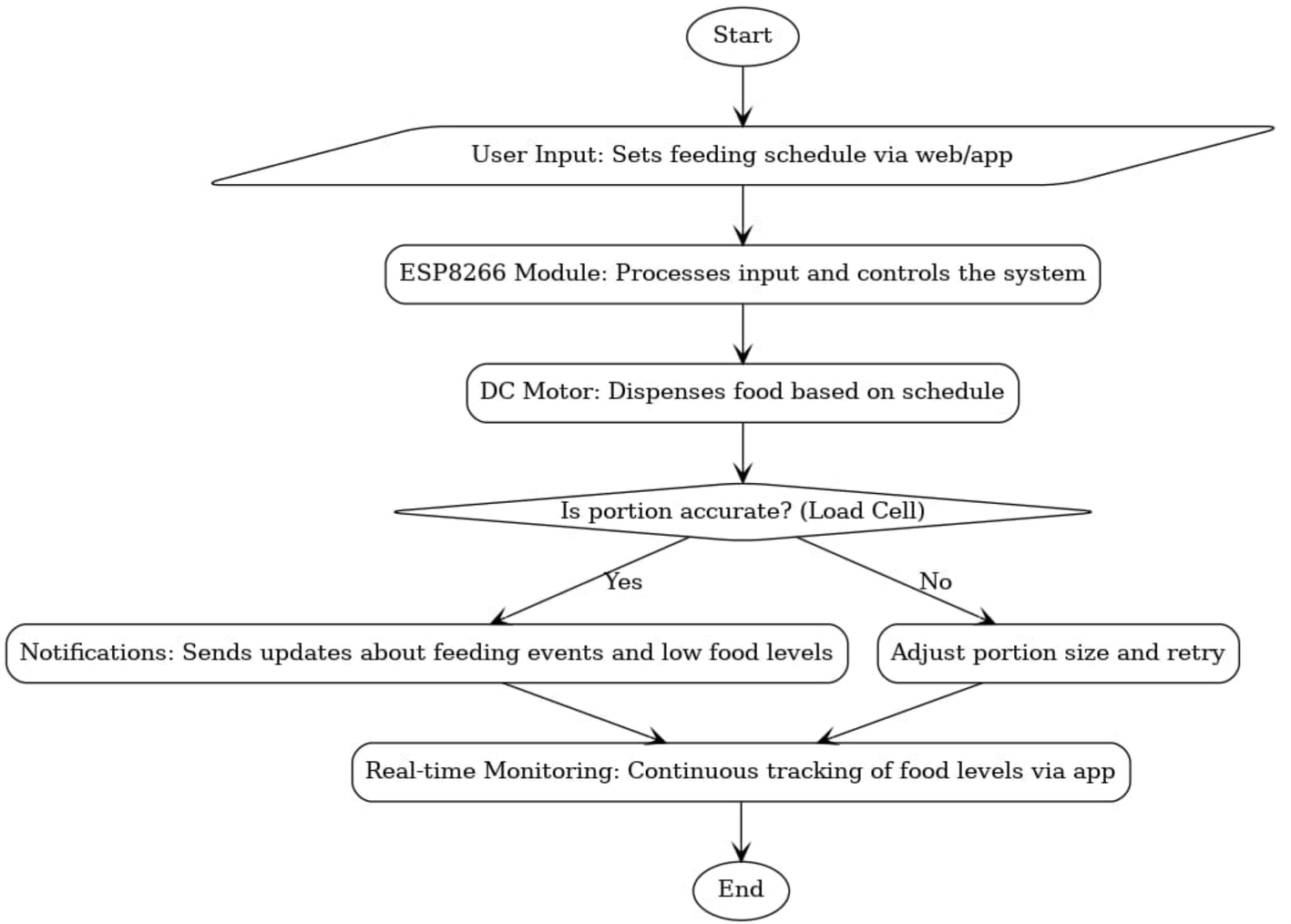
Components Required(Hardware):

S.NO	HARDWARE	QUANTITY
1	ESP8266 Module	1
2	L298N Motor Driver	1
3	DC Motor (PR500)	1
4	Load Cell (20kg)	1
5	Load Cell Amplifier (HX711)	1
6	Power Supply	1
7	Jumper Wires	As Required
8	Food Container and Dispenser Mechanism	1

Components Required(Software):

- ESP8266 programming for automation and user commands.
- Blynk IoT platform integration for notifications and schedule management.
- Libraries: HX711 and BlynkSimpleEsp8266.

Flow Diagram:



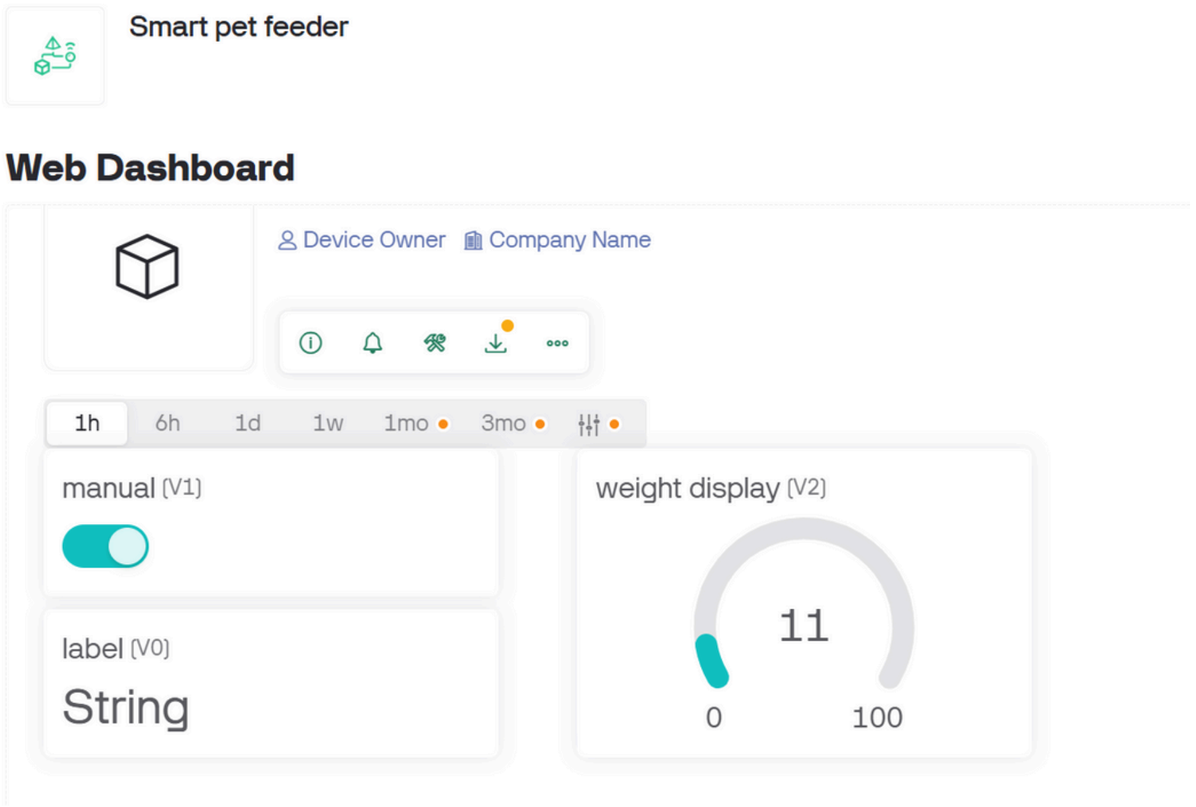
Implementation(Hardware):

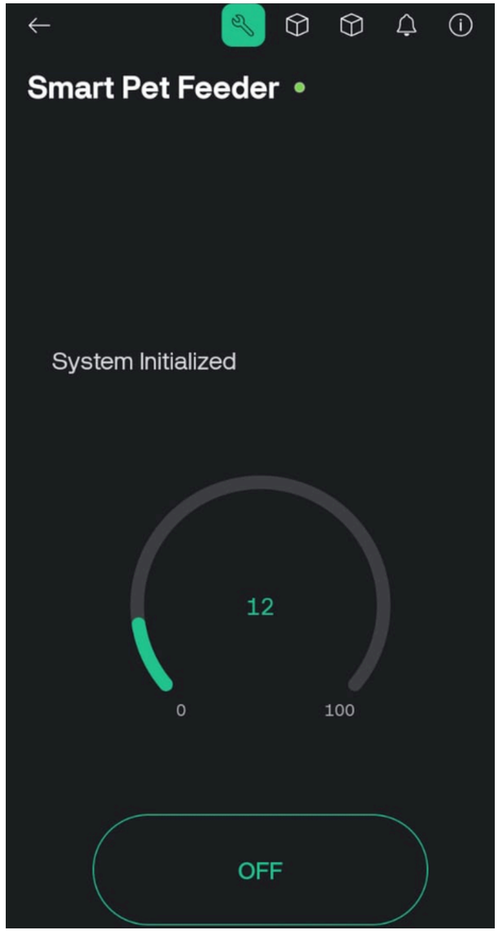
- Attach load cell to the dispenser for weight measurement.
- Use L298N driver to operate the DC motor for dispensing food.
- Connect ESP8266 to enable IoT functionalities.
- Assemble the dispenser mechanism with a food container.

Implementation(Software):

- Program ESP8266 for feeding schedules and commands.
- Calibrate load cell using HX711 amplifier for accurate measurements.
- Develop a Blynk interface to monitor food levels and manage feeding schedules.
- Integrate Blynk platform for real-time notifications and user interaction.

OUTPUT:


Smart pet feeder
Web Dashboard
Device Owner
Company Name
1h
6h
1d
1w
1mo
3mo
manual (V1)
label (V0)
String
weight display (V2)
11
0
100


Smart Pet Feeder
System Initialized
12
0
100
OFF

THANK YOU