

FlowChart - Step 3

Logic for Automated Pet Feeder:

Start → System powers on and initializes.

1. Verify Feeding Schedule

- If the current time is 8:00 AM or 6:00 PM, move to the next step.
- Otherwise, check whether a manual feed request has been made.

2. Manual Feeding Option

- If a manual feed button is pressed, continue to food availability check.
- If no request is made, the system stays in a standby mode.

3. Check Food Supply

- If food is present in the storage container, proceed to dispense operation.
- If the container is empty, trigger a “Refill Food” notification and return to standby.

4. Dispense Food

- Activate the servo motor for approximately 3 seconds to release the food.
- Measure and record the bowl weight before dispensing.

5. Monitor the Feeding Bowl

- Wait for 10 minutes after dispensing.
- Measure the bowl weight again and compare with the initial reading.

6. Evaluate Feeding Success

- If the bowl weight has dropped by 5 grams or more, consider the feeding successful.
- If the weight decrease is less than 5 grams, trigger an “Uneaten Food” alert.

7. Return to Standby

- After completing the feeding check, the system goes back to waiting mode.

- The cycle repeats at the next scheduled feeding time or when a manual request is received.

