

## Step 5: Debug & Verify

Scenario	Input	Exepcted Output
Pet eats as expected	Clock is at 8:AM, Food bowl is 100% filled	Food should dispense and the pet should eat
Pet does not eat	After the scheduled time, food bowl weighs the same as before	Motor dispenses food, but pet did not eat, send alert
Food bin is empty	At the scheduled feeding time, the food bowl is empty	Alert sent to refill the food stock
Motor fault during dispensing	Motor could not dispense food during the scheduled feeding time	Alert sent informing the motor issue
Overfeeding prevention	Next feed is scheduled at 1PM. Until then the food bowl remains empty	No more food is dispensed

### Refinements & Improvements

- Adjustable alert timings — allow owner to set how long before uneaten food triggers an alert.
- Consumption history logs — track how much each pet eats over time to identify health changes.
- Redundant sensors — e.g., second bin sensor to confirm food availability and reduce false “empty” alerts.
- Remote manual override — caretaker can trigger feeding from a mobile app in emergencies.