Step 5: Test and Refine the Solution (Debug and Verify)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Scenarios** | **Input Values** | **Expected Outcome** | **Actual Outcome** | **Result** | **Improvements/Notes** |
| Pet eats as expected | Time: 9am  Food level: >= 15%  Weight before feeding: 90 grams  Weight after:0 grams | Dispense food, update feed log | Dispense food, update feed log | Pass | Works as it should |
| Pet does not eat | Time: 9am  Food level: >= 15%  Weight before feeding: 90 grams  Weight after feeding: 90 grams | Alert staff (food not eaten) | Alert staff (food not eaten) | Pass | If staff doesn’t respond in 15 minutes, send another alert |
| Dispenser is empty | Time: 9am  Food level: <15% | Manual feed command, Alert staff (dispenser empty) | Manual feed command, Alert staff (dispenser empty) | Pass | Should add a low food in the dispenser alert at least half an hour before feeding time |
| Food not dispensed | Time: 9am  Food level: >= 15%  Servo activation failed | Manual feed command, Alert staff (food not dispensed) | Manual feed command, Alert staff (food not dispensed) | Pass | Add retry attempt before ending alert |
| Feeding time not yet reached | Time: 8:45am  Feeding time: 9am | Wait before checking again | Wait before checking again | Pass | None |