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| --- | --- | --- | --- | --- |
| **Parameters** | **Type** | **Description** | **Operational contraints** | **Sample values** |
| Real time clock | Input | Tracks current time | Format HH:MM (24hrs) | 8:00, 14:00 |
| Food Level Sensor | Input | Measures amount of food left in the container | Low,medium,full | Low |
| Bowl weight Sensor | Input | Measures the weight of food in the bowl | 0–100 g; | 58g |
| Scheduling time | Variable | Feeding time | Format HH:MM (24hrs) | 13:00,15:00 |
| Dispenser status | Boolean | Indicates dispenser working status | True = working, False = fault | True |
| Food consumption timer | Variable | Tracks the elapsed time after the food has been dispersed | Alert if food uneaten after preset duration | 20 minutes |
| Rotate motor | Output | Activates motor to dispense food | On = dispense, Off = idle | On |
| Send alert | Output | Send different alerts | Types: Low food, Dispenser fault, Food not eaten | Food not eaten |
| Display scheduling time | Output | Display upcoming scheduled feeding time | Updates dynamically based on schedule | Next feed at 16:00 |
| Logs of feeding event | Output | Logs the feeding time, amount of food dispensed, consumption status | Includes time, amount dispensed, consumption status | 14:00-50 gm dispensed, consumed |
| Max weight in bowl | constant | Maximum allowed food | Prevents overfilling; system will not dispense beyond this | 100 g |

DATA ORGANISATION

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