Step 2: Organise and Describe the Data

Type	Name/Source	Description	Sample Values	Notes
Input	Feeding Schedule (RTC)	Real-time clock providing current time for feeding	08:00, 18:00 (twice a day feeding)	Limited to pre-programmed times
Input	Food Bin Level Sensor	Detects if food is in the food storage bin	“Full”, “Low”, “Empty”	Must be checked before dispensing
Input	Bowl Weight Sensor	Measures the weight of food in bowl	0 g, 100 g, 250 g	Used to detect food dispensed and eaten
Input	Error Detection Signals	Detects motor jam or sensor malfunction	“OK”, “Error”	If error occurs, feeding cycle is terminated + alert
Output	Motor Control	Rotates to dispense food	Rotates 90° (one portion)	Portion size depends on angle
Output	System Logs	Records feeding event, time and consumption	“08:00 – Dispensed 250 g – 200 g eaten”	Stored locally, limited memory
Output	Staff Alerts	Notifies staff of issues	“Bin empty”, “Jammed”, “Not eaten”	Alerts via buzzer or LED