

Step 2: Organise and Describe the Data (Visual Table)

Data Item / Input	Type / Source	Expected Output / Action	Sample Value	Operational Constraint
Current Time	Real-Time Clock (RTC)	Trigger feeding at scheduled time	08:00, 18:00	Must be accurate to ± 1 minute
Food Level	Food bin sensor	Alert if food is low	80% full	Feeding cannot occur if $< 10\%$
Bowl Weight	Weight sensor under bowl	Confirm dispensed food; detect uneaten food	0g \rightarrow 100g	Accuracy ± 5 g
Servo Motor Status	Control system output	Rotate motor to dispense food	ON/OFF	Must rotate full portion; stop on jam
Alert Message	Control system output	Notify owner of errors	"Feeding incomplete"	Only sent if failure detected
Feeding Log	Software record	Store timestamp and feeding success	08:00 – Success	Maintain persistent log