# Automated Pet Feeder – Part 1 (Problem Analysis)

**Problem Statement:**
A low-cost feeder for cats and dogs that can:

- Dispense food at set times.
- Check if food was eaten.
- Alert staff if there's a problem.

**Assumptions:**

- Uses cheap parts (servo motor, sensors).
- One type of dry food.
- Power from wall socket.
- Simple daily schedule.

**Inputs:**

- Feeding times.
- Portion size.
- Sensor data (food in hopper, food in bowl, food eaten).

**Outputs:**

- Motor turns to dispense food.
- Alerts (buzzer/light).
- Feeding log.

**Simple Diagram:**