**Step 3: Plan the Solution (Design the Algorithm)**

* **Create decision logic for dispensing food (e.g., “At 8AM and 6PM, rotate servo to dispense food”).**

▶**IF current time is 8:00AM, 12:00PM, or 6:00PM**

AND food storage ‘≥ 150g’

AND bowl weight ‘< 7g’

THEN

→ Dispense food (8:00AM: 100g, 12:00PM: 150g, 6:00PM: 150g)

→ Measure and log the actual amount dispensed

→ Start a 20minutes timer to check food consumption

ELSE

→ Send an alert based on the failed condition

* **Add logic to detect errors (e.g., “If bowl weight unchanged 10 mins after feeding, send alert”).**

▶**IF bowl weight ‘> 7g’**

THEN

→ Send alert: ‘Food not consumed’

**IF food was dispensed**

AND bowl weight is still ‘> 7g’ within 20 minutes

THEN

→ Send alert: ‘Food not consumed’

**IF feeder status is not normal**

THEN

→ Send alert: 'Out of order'

ELSE

Wait for the feeder's status out of order

**IF feeder’s battery capacity is less than 10%**

THEN

→ Send alert: ‘Battery replacement required’

ELSE

Wait for the battery capacity less than 10%

**IF current time is 7:50 AM, 11:50 PM, or 5:50 PM**

AND food storage ‘≥ 150g’

THEN

Wait for feeding time

ELSE

→ Send alert: ‘Need to fill up the food’

* **You must create a flowchart to represent your algorithm using Draw.io.**
* **Follow the instructions shown in the appendix of this assignment.**

Deliverable: A flowchart representing your automated pet feeder logic (exported from Draw.io and included in your assignment report). You must also include in your submission the actual Draw.io file.