# Flowchart & Logic (Step 3)

### The logic for the Automated Pet Feeder is:

**Start:** System initializes.

# 1. Check Feeding Time:

- If the current time matches a scheduled feeding (e.g., 8:00 AM or 6:00 PM), proceed.
- Otherwise, check for a manual feed request.

# 2. Manual Feed Request:

- o If a manual request is made, proceed to check food availability.
- If not, return to the waiting state.

# 3. Check Food Availability:

- o If food is present in the storage, proceed to operate the servo motor.
- If storage is empty, send a "Refill Food" alert and return to waiting.

#### 4. Dispense Food:

- Rotate the servo motor for 3 seconds to release food.
- Record the bowl weight before feeding.

#### 5. Wait and Monitor Bowl:

 Wait for 10 minutes, then compare the bowl weight before and after feeding.

#### 6. Check Bowl Weight Change:

- o If the weight decreases by 5 g or more, feeding is successful.
- o If the weight decreases by less than 5 g, send an "Uneaten Food" alert.

# 7. Return to Waiting State:

Repeat the cycle for the next scheduled feeding or manual request.

# FlowChart of the system Start Is it feeding time (8 AM or 6 PM) Yes No Yes Manual feed Requested? No Yes No Is food available? Loop Back Rotate Servo Send "Refill Food" Alert Motor(3s) Record Bowl Weight Wait 10 minutes Check Bowl Weight Change <= 5g >= 5g Send "Uneaten" Alert Feeding Successfully End / Repeat Cycle