Step 4: Implement the solution (word coding)

Start

: Initialize system;

: Check RTC (feeding schedule);

if (Feeding time?) then (Yes)

  : Activate motor to dispense food;

  : Check weight sensor (food dispensed?);

  if (Food dispensed correctly?) then (Yes)

   : Monitor weight sensor (is food eaten in time?);

  if (Food eaten within set time?) then (Yes)

    : Log data (time, food dispensed, eaten);

    : Update display (Normal status);

   else (No)

    : Alert staff (food not eaten);

    : Log data (food left in bowl);

    : Update display (Food not eaten);

   endif

  else (No)

   : Alert staff (dispensing error);

   : Log data (error: no/low food dispensed);

   : Update display (Error/Low food);

  endif

else (No)

  : Wait until next scheduled time;

endif

: Check system status;

if (Any component failure?) then (Yes)

  : Alert staff (system fault);

Endif

stop