# Step 4: Implement the Solution (Word Coding)

BEGIN PROGRAM

# Define variables

feedingTimes = ["08:00", "18:00"] # Scheduled feeding times

portionSize = 50 # Portion in grams

foodBinLevel = 0 # Current food bin level (grams)

bowlWeightBefore = 0 # Weight before feeding (grams)

bowlWeightAfter = 0 # Weight after feeding (grams)

eatenThreshold = 5 # Minimum weight change to consider eaten

loopDelay = 1 # 1 minute wait when not feeding time

LOOP forever:

# Step 3: Read sensors

currentTime = GetCurrentTime()

foodBinLevel = ReadFoodBinLevel()

bowlWeightBefore = ReadBowlWeight()

# Step 4: Check feeding time

IF currentTime = feedingTimes THEN

# Step 5: Check food bin level

IF foodBinLevel > 0 THEN

ActivateServoMotor(5 seconds) # Dispense food portion

bowlWeightAfter = ReadBowlWeight()

foodBinLevel = foodBinLevel - portionSize # Update bin level

Wait(10 minutes) # Allow pet to eat

# Step 8: Check if pet ate

weightChange = bowlWeightAfter - bowlWeightBefore

IF weightChange < eatenThreshold THEN

SetLED("RED")

SendAlert("Pet did not eat")

ELSE

SetLED("GREEN")

ENDIF

ELSE

# Bin is empty

SetLED("RED")

SendAlert("Food bin empty")

ENDIF

ELSE

# Not feeding time

IF foodBinLevel < 15% THEN

SetLED("YELLOW") # Low food warning

ENDIF

Wait(loopDelay) # Wait 1 minute before looping again

ENDIF

END LOOP

END PROGRAM