Readme

PLC - GumiGam Production System

Description

The factory produces two types of gumi: Regular and Super. The gumi type is determined by the Analog Input1 value. If $0 \leq$ input ≤ 5, a regular gumi is produced; if $6 \leq$ input ≤ 10, a super gumi is produced. The production process comprises four main stages: Preparation of ice cream flavors, refrigeration of ice cream, mixing all ingredients and packaging.

Dependencies

- Gx Works2

Program Interaction

1. Open the attached file.

2. Navigate to the online tab and select 'PLC memory operation.'

3. Click 'clear PLC memory.'

4. Access the Compile tab and choose 'Rebuild All.'

5. Go to the Online tab and select 'Write to PLC.'

6. Press 'Start Monitoring.'

7. Access the Online tab and choose 'Remote Operation(s).'

8. Click 'RUN.'

9. Fill the desired inventory in the 'Watch 1' window (located in the bottom-right corner).

10. To initiate the plan, press the button X7.

Seven packs Production Instructions

1. Choose the gumi type by entering the correct value into Analog Input1.

2. Pull switch X1 to transfer the gumi type and initiate the preparation of ice cream.

3. Wait until the Y0 light ball turns off.

4. Pull switch X2 to start the fermentation stage.

5. Wait until light balls Y2 turn off or X3 up and then wait until light balls Y5 and Y6 turn off during the mixing stage.

6. Pull switch X4 to begin the packing stage.

7. Toggle switch X0 up and down seven times to pack seven cups.

- The light ball Y7 will remain on throughout the workday.

- The day will end if the inventory levels fall below the required amount for the chosen gumi type.

- In case of an emergency, press button X5 to immediately terminate the workday.

- Remember to pull all switches down at the beginning of a new seven-packs production.

- At the end of each workday, the total number of seven-packs produced will be displayed on the screen.

Contributors

Noy Cohen

Daniel Monsego

Yaniv Rohberg

Amit Nachman