PLC Lab 1: Sorting Routine

Objectives

1. Detect plastic ring components travelling along the chain conveyor and load them into the queue.
2. Detect metal components travelling along the chain conveyor and allow them to pass through the sorting area and down the feeder chute assembly chute.

Procedure

1. Activate the chain conveyor.
2. Retrieve sensor information
    a. Input Sensor 12: IR Proximity Sensor at sort area—it detects the presence of any object
    b. Input Sensor 5: Inductive Sensor—it only the close proximity of a metal peg.
3. Selectively trigger Output 5: The Sorting Solenoid

The two sensors can be logically gated as shown in figure 1 to produce a sorting signal for the sorting solenoid.

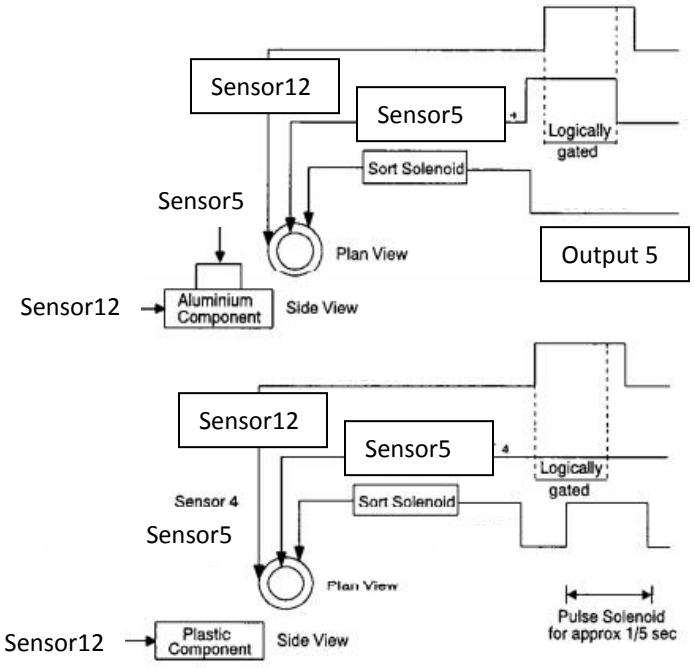

Figure 1: Signal Sequences at the Sorting Area.