Reset all the process and pre requisities

Rung 0

I_Reset_PB
<Local:2:I.Data.3>

Timer_Pre_Reset.TT

Status_RESETTING
(L)

Home position
AT_HOME
(U)

Box_Fell
(U)

CLR
Dest   Reset_Step
            512

Rung 1

I_Reset_PB
<Local:2:I.Data.3>

Timer_Pre_Reset.TT

Reset_Step.0
(L)

Timer_Reset[0]
(RES)

Step 1: Turn off all tower indicator lamps

Rung 2

Reset_Step.0

O_Vacuum_On
<Local:5:O.Data.1>
(U)

O_Vacuum_Off
<Local:5:O.Data.2>
( )

TON
Timer   Timer_Reset[0]   (EN)
Preset   250   (DN)
Accum   0

Rung 3

Reset_Step.0   Timer_Reset[0].DN   I_Vacuum_Sensor_On
                                     <Local:3:I.Data.8>
                                          (/)

Reset_Step.0
(U)

Reset_Step.1
(L)

Timer_Reset[1]
(RES)

Step 2: Blink amber tower indicator to signal system resetting

Rung 4

Reset_Step.1

O_Box_Eject
<Local:4:O.Data.0>
(U)

TON
Timer   Timer_Reset[1]   (EN)
Preset   250   (DN)
Accum   0

Rung 5

Reset_Step.1   Timer_Reset[1].DN   I_Box_Ejector_Extended
                                     <Local:2:I.Data.4>
                                          (/)

Reset_Step.1
(U)

Reset_Step.2
(L)

Timer_Reset[2]
(RES)

a_Reset_Routine - Ladder Diagram   Page 2
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Total number of rungs in routine: 21   C:\Users\SIM190Lab\Documents\EGR 550NY\New folder\EGR550_TEAM4_TUESDAY_FINAL.ACD

Step 3: Turn off vacuum and Retract Vaccum Head

6

Reset_Step.2

O_Vacuum_Head_Extend
<Local:4:O.Data.8>
(U)

TON
Timer   Timer_Reset[2]   (EN)
Preset   250   (DN)
Accum   0

7

Reset_Step.2   Timer_Reset[2].DN   I_Vacuum_Head_Retracted
<Local:2:I.Data.13>

Reset_Step.2
(U)

Reset_Step.3
(L)

Timer_Reset[3]
(RES)

Step 4: Rotate vacuum head clockwise

8

Reset_Step.3

O_Vacuum_Head_Rotate_CW
<Local:4:O.Data.6>
( )

O_Vacuum_Head_Rotate_CCW
<Local:4:O.Data.7>
(U)

TON
Timer   Timer_Reset[3]   (EN)
Preset   250   (DN)
Accum   0

9

Reset_Step.3   Timer_Reset[3].DN   I_Vacuum_Head_Rotated_CW
<Local:2:I.Data.12>

Reset_Step.3
(U)

Reset_Step.4
(L)

Timer_Reset[4]
(RES)

Step 5: Raise Vaccum Head

10

Reset_Step.4

O_Vacuum_Head_Lower
<Local:4:O.Data.5>
(U)

TON
Timer   Timer_Reset[4]   (EN)
Preset   250   (DN)
Accum   0

11

Reset_Step.4   Timer_Reset[4].DN   I_Vacuum_Head_Raised
<Local:2:I.Data.9>

Reset_Step.4
(U)

Reset_Step.5
(L)

Timer_Reset[5]
(RES)

a_Reset_Routine - Ladder Diagram
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Project_Template:MainTask:MainProgram
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Total number of rungs in routine: 21
C:\Users\SIM190Lab\Documents\EGR 550NY\New folder\EGR550_TEAM4_TUESDAY_FINAL.ACD

Step 6: Position vacuum head at box magazine

Rung 12

Reset_Step.5

O_Vacuum_Head_to_Magazine
<Local:4:O.Data.10>

O_Vacuum_Head_to_Conveyor
<Local:4:O.Data.9>
(U)

TON
Timer   Timer_Reset[5]   (EN)
Preset   300   (DN)
Accum   0

Rung 13

Reset_Step.5   Timer_Reset[5].DN   I_Vacuum_Head_at_Magazine
<Local:2:I.Data.15>

Reset_Step.5
(U)

Reset_Step.6
(L)

Timer Conveyor to
clear boxes
Timer_Conveyor_Reset
(RES)

Step 7: Rotate vacuum head counterclockwise

Rung 14

Reset_Step.6

O_Vacuum_Head_Rotate_CCW
<Local:4:O.Data.7>

O_Vacuum_Head_Rotate_CW
<Local:4:O.Data.6>
(U)

Rung 15

Reset_Step.6   I_Vacuum_Head_Rotated_CCW
<Local:2:I.Data.11>

Reset_Step.6
(U)

Reset_Step.7
(L)

Step 8: Barcode stop Raise

Rung 16

Reset_Step.7

O_Barcode_Stop_Raise
<Local:4:O.Data.14>

Rung 17

Reset_Step.7   I_Barcode_Stop_Raised
<Local:3:I.Data.1>

Reset_Step.8
(L)

Step 9: Set Home

Rung 18

Reset_Step.8

O_Conveyor_On
<Local:5:O.Data.5>

Timer Conveyor to
clear boxes
TON
Timer   Timer_Conveyor_Reset   (EN)
Preset   900   (DN)
Accum   0

19

Timer Conveyor to clear boxes

Reset_Step.8   Timer_Conveyor_Reset.DN

O_Conveyor_On
<Local:5:O.Data.5>
(U)

Reset_Step.9
(L)

20

Reset_Step.9   I_Vacuum_Head_at_Magazine   I_Vacuum_Head_Rotated_CCW   I_Vacuum_Head_Raised
<Local:2:I.Data.15>   <Local:2:I.Data.11>   <Local:2:I.Data.9>

Timer Conveyor to clear boxes
Timer_Conveyor_Reset.DN

Reset_Step.7
(U)

Reset_Step.8
(U)

Home position
AT_HOME
(L)

Status_RESETTING
(U)

O_Vacuum_Head_Rotate_CCW
<Local:4:O.Data.7>
(U)

O_Barcode_Stop_Raise
<Local:4:O.Data.14>
(U)

(End)