MainRoutine - Ladder Diagram
lab_3:MainTask:MainProgram
Total number of rungs in routine: 19

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Lab 3 Batch Process
Aras Siddiqui & Javaungh Smith

0

Step_1   Step_2   Step_3   Step_4   Step_5   Step_0

Starts process when start button is pressed

1

Step_0   Start Local:5:I.Data.0   Stop Local:5:I.Data.1   One_Thousand_Items.DN   Step_1

Step_1

Opens the load

2

Step_1   LS1 Local:5:I.Data.2   Step_3   Step_2

Step_2

Conveyor moves when 50 items filled

3

Step_2   Fifty_Items.DN   Step_4   Step_3

Step_3

conveyor moves to drop off

4

Step_3   LS2 Local:5:I.Data.3   Step_5   Step_4

Step_4

waits for unloading

5

Step_4   Unloading.DN   Step_6   Step_5

Step_5

6

Step_5   LS1 Local:5:I.Data.2   Step_6

Starts MCR

7

Local:5:I.Data.5   MCR

MainRoutine - Ladder Diagram
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Counter for 50 items

8

Step_2   Item counter
Local:5:I.Data.4

CTU
Count Up
Counter   Fifty_Items
Preset   5
Accum   0
— CU
— DN

Counter for unloading

9

Step_4

TON
Timer On Delay
Timer   Unloading
Preset   2000
Accum   0
— EN
— DN

Counter for 1000 items loaded and then unloaded

10

Step_1   Item counter
Local:5:I.Data.4

CTU
Count Up
Counter   One_Thousand_Items
Preset   10
Accum   0
— CU
— DN

OUTPUT FOR STEP 2

11

Step_2   Local:6:O.Data.2

OUTPUT FOR STEP 3

12

Step_3   Pilot.TT   Local:6:O.Data.4

OUTPUT FOR STEP 5

13

Step_5   Local:6:O.Data.5

Closing MCR

14

MCR

Adding pilot timmer for light

15

Step_3   Local:5:I.Data.6   Local:5:I.Data.7

Pilot.TT

TON
Timer On Delay
Timer   Pilot
Preset   10000
Accum   0
— EN
— DN

MainRoutine - Ladder Diagram

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lab_3:MainTask:MainProgram

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Total number of rungs in routine: 19

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Time pilot light on

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```
   off.DN     Pilot.TT                                    ┌───TON───────────────────┐
  ──┤ / ├──────┤ ├───────────────────────────────────────┤ Timer On Delay    ─(EN)─┤
                                                          │ Timer            On      │
                                                          │ Preset         1000 ─(DN)┤
                                                          │ Accum             0      │
                                                          └──────────────────────────┘
```

Time pilot light off

17

```
   On.DN      Pilot.TT                                    ┌───TON───────────────────┐
  ──┤ ├────────┤ ├───────────────────────────────────────┤ Timer On Delay    ─(EN)─┤
                                                          │ Timer           off      │
                                                          │ Preset         1000 ─(DN)┤
                                                          │ Accum             0      │
                                                          └──────────────────────────┘
```

LIGHT OUT

18

```
   On.TT                                                            Local:6:O.Data.3
  ──┤ ├──────────────────────────────────────────────────────────────────( )────────
```

(End)