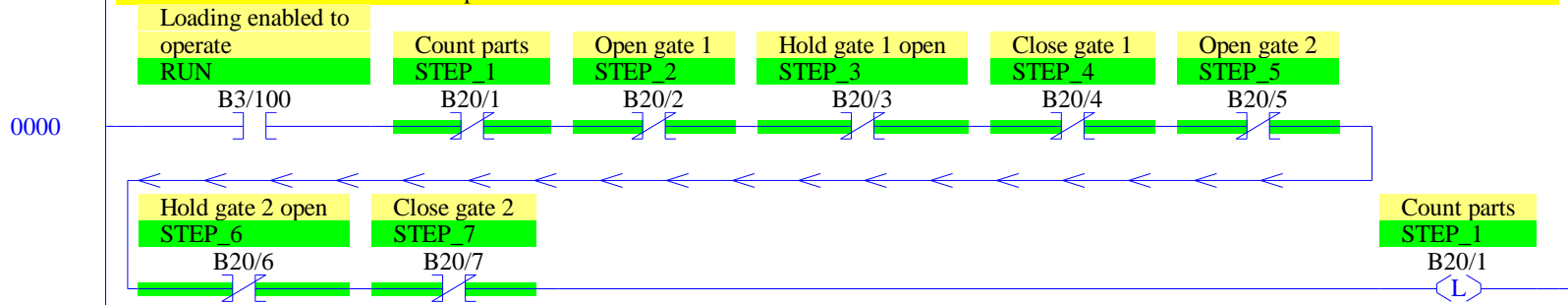


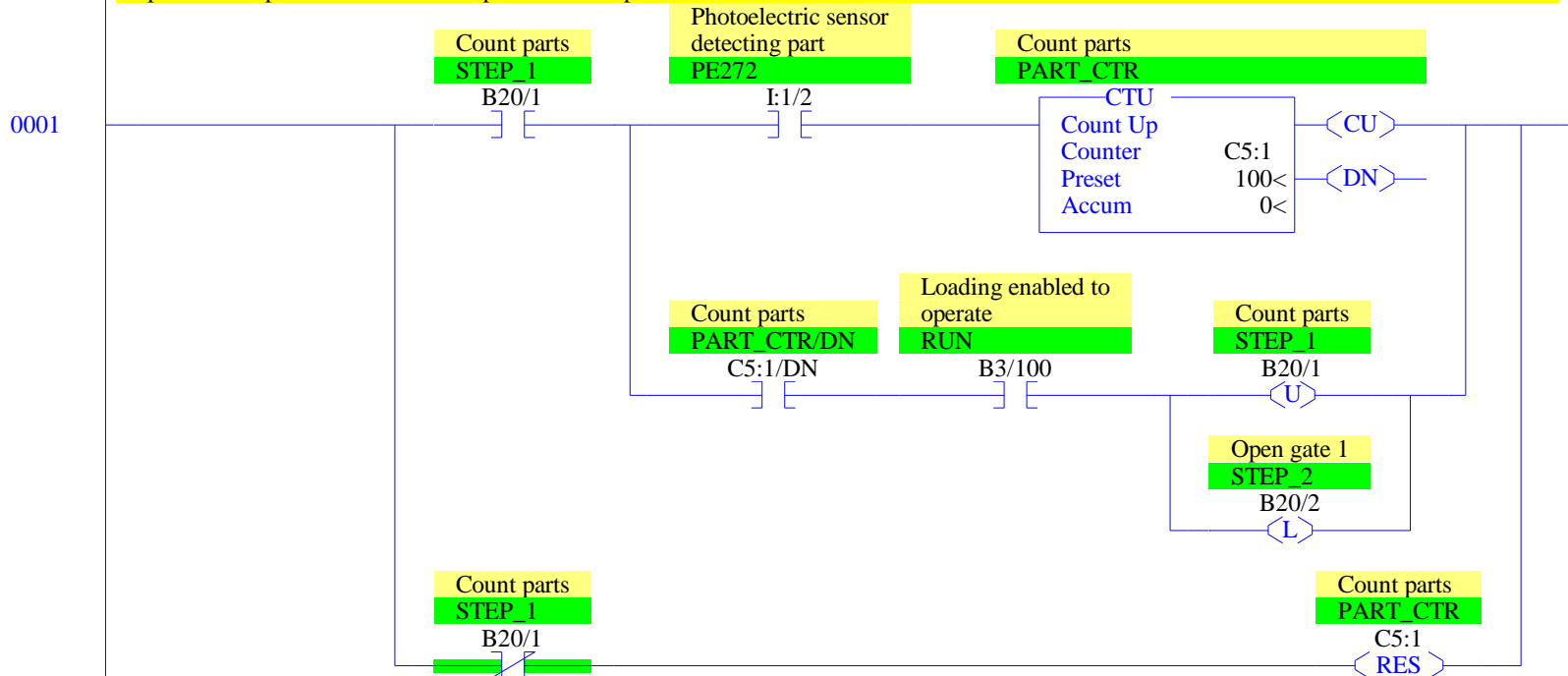
### Example 6.3 Tub Loader Control

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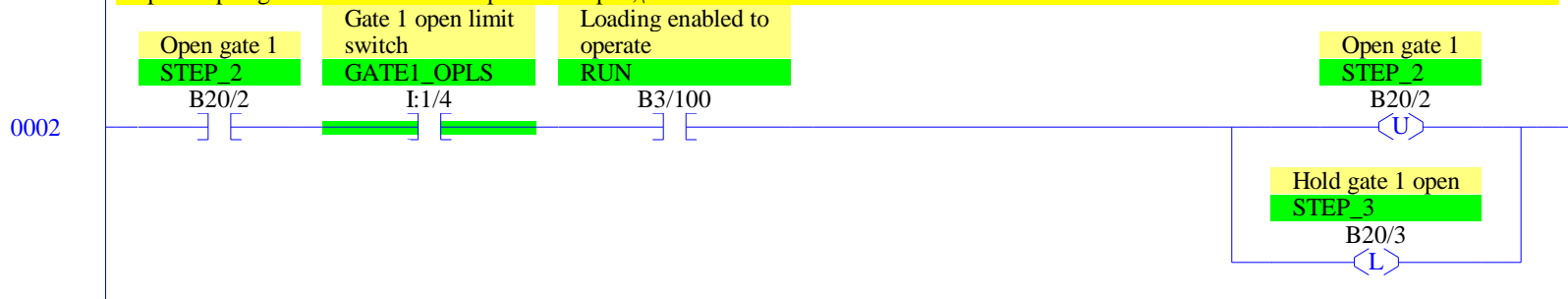
Generate transition out of initial step



Step 1 - Count parts. Transition to step 2 when 100 parts counted.



Step 2 - Open gate 1. Transition to step 3 when open,\.



0003

Step 3 - Hold gate 1 open for 3 secs after tub passes. Transition to step 4 when done.

Hold gate 1 open

STEP 3

B20/3

I:1/3

B3/100

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

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G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

T4:1/DN

G1\_HOLD\_TMR

0004

Step 4 - Close gate 1. Transition to step 5 when closed.

Close gate 1

STEP 4

B20/4

I:1/5

B3/100

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

Gate 1 closed limit

switch

GATE1\_CLLS

I:1/5

B3/100

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

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RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

GATE1\_CLLS

RUN

Loading enabled to

operate

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

Gate 1 hold

open timer

G1\_HOLD\_TMR

G1\_HOLD\_TMR

G1\_HOLD\_TMR

G1\_HOLD\_TMR

G1\_HOLD\_TMR

G1\_HOLD\_TMR

G1\_HOLD\_TMR

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G1\_HOLD\_TMR

G1\_HOLD\_TMR

G1\_HOLD\_TMR

G1\_HOLD\_TMR

G1\_HOLD\_TMR

Close gate 1

STEP 4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

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B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

Close gate 1

STEP 4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

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B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

B20/4

0005

Step 5 - Open gate 2. Transition to step 6 when open.\.

Open gate 2

STEP 5

B20/5

I:1/6

B3/100

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

Gate 2 open limit

switch

GATE2\_OPLS

I:1/6

B3/100

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

GATE2\_OPLS

RUN

Loading enabled to

operate

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

RUN

Open gate 2

STEP 5

B20/5

B20/5

B20/5

B20/5

B20/5

B20/5

B20/5

B20/5

B20/5

B20/5

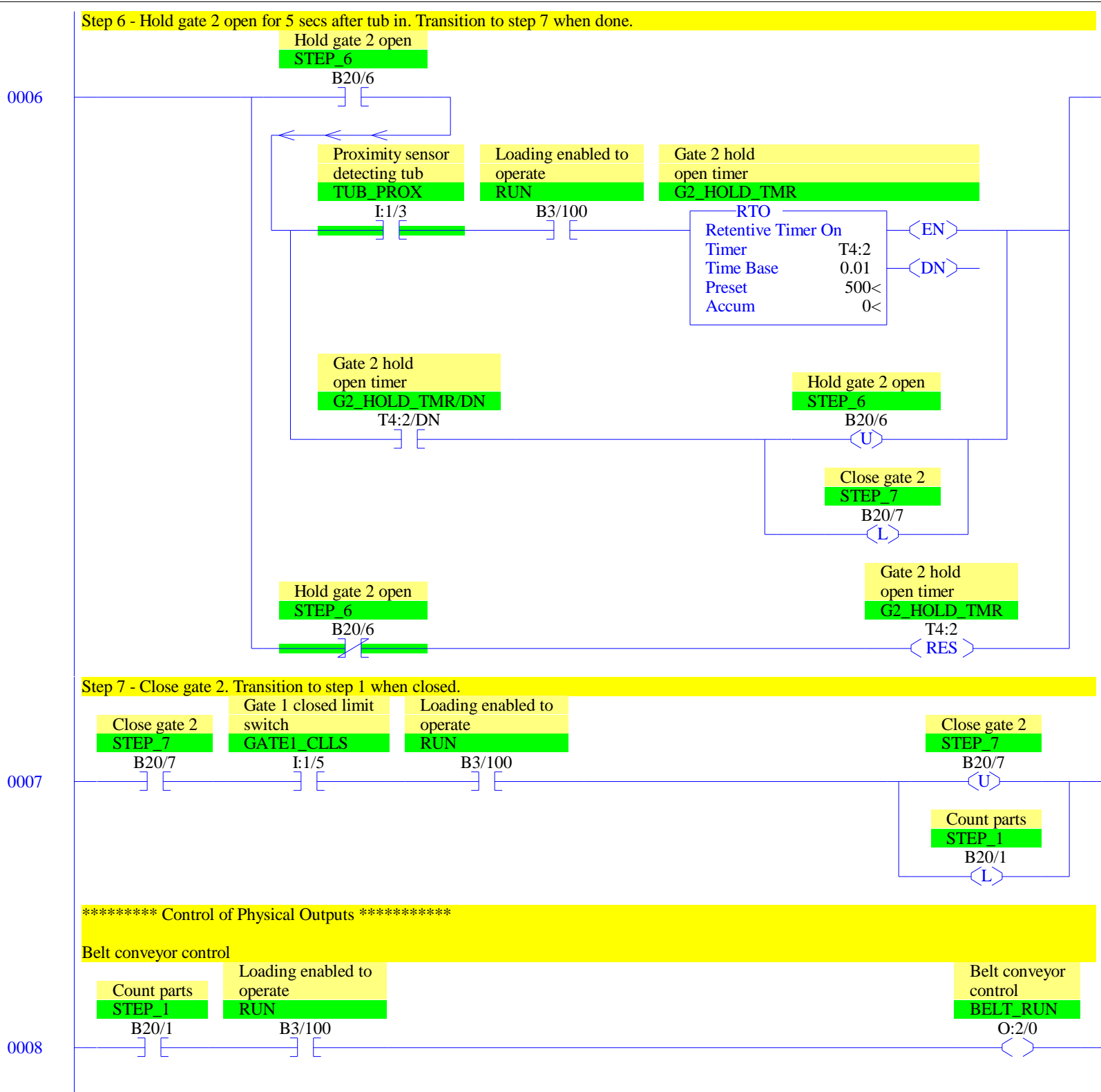
B20/5

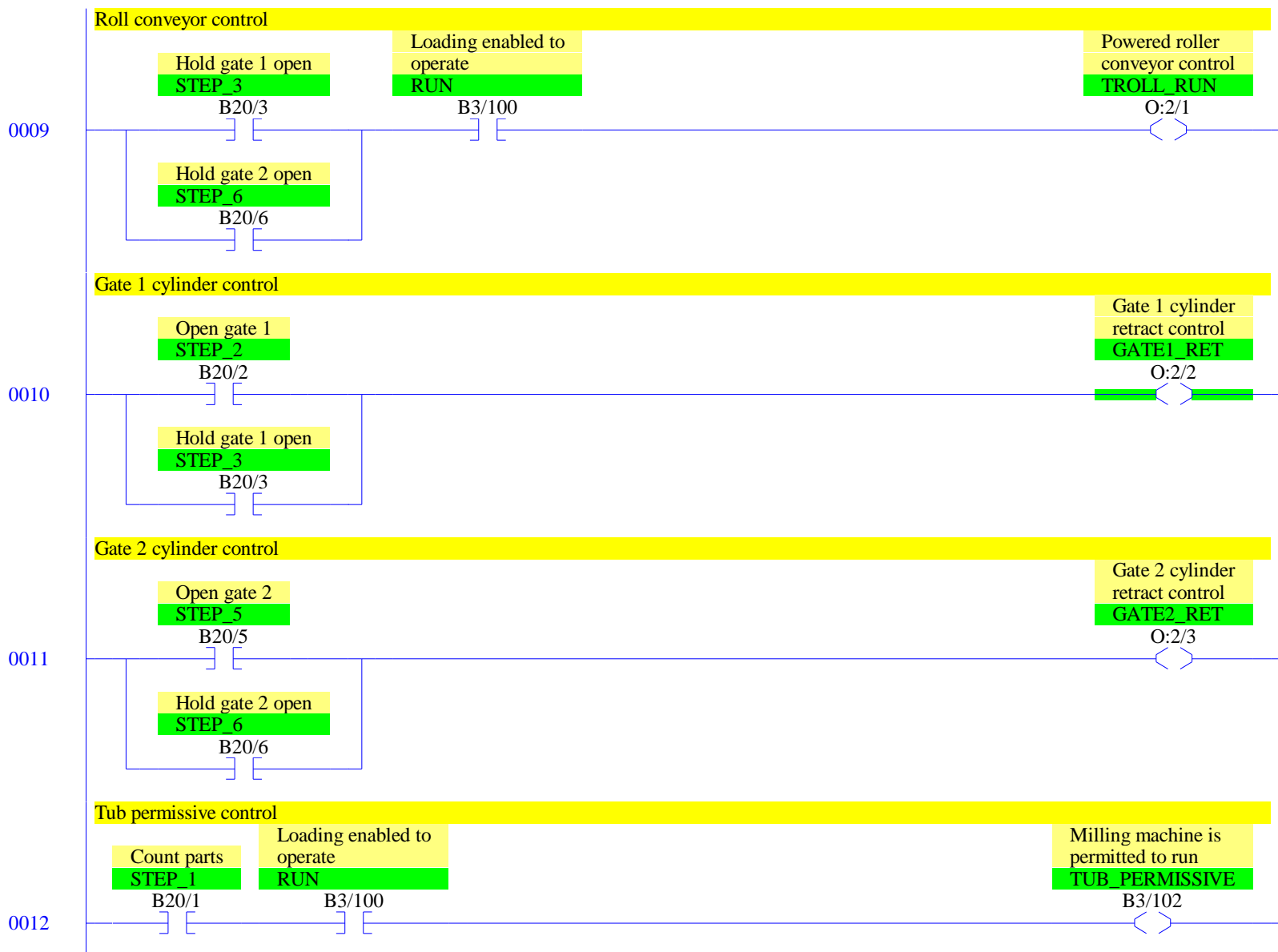
B20/5

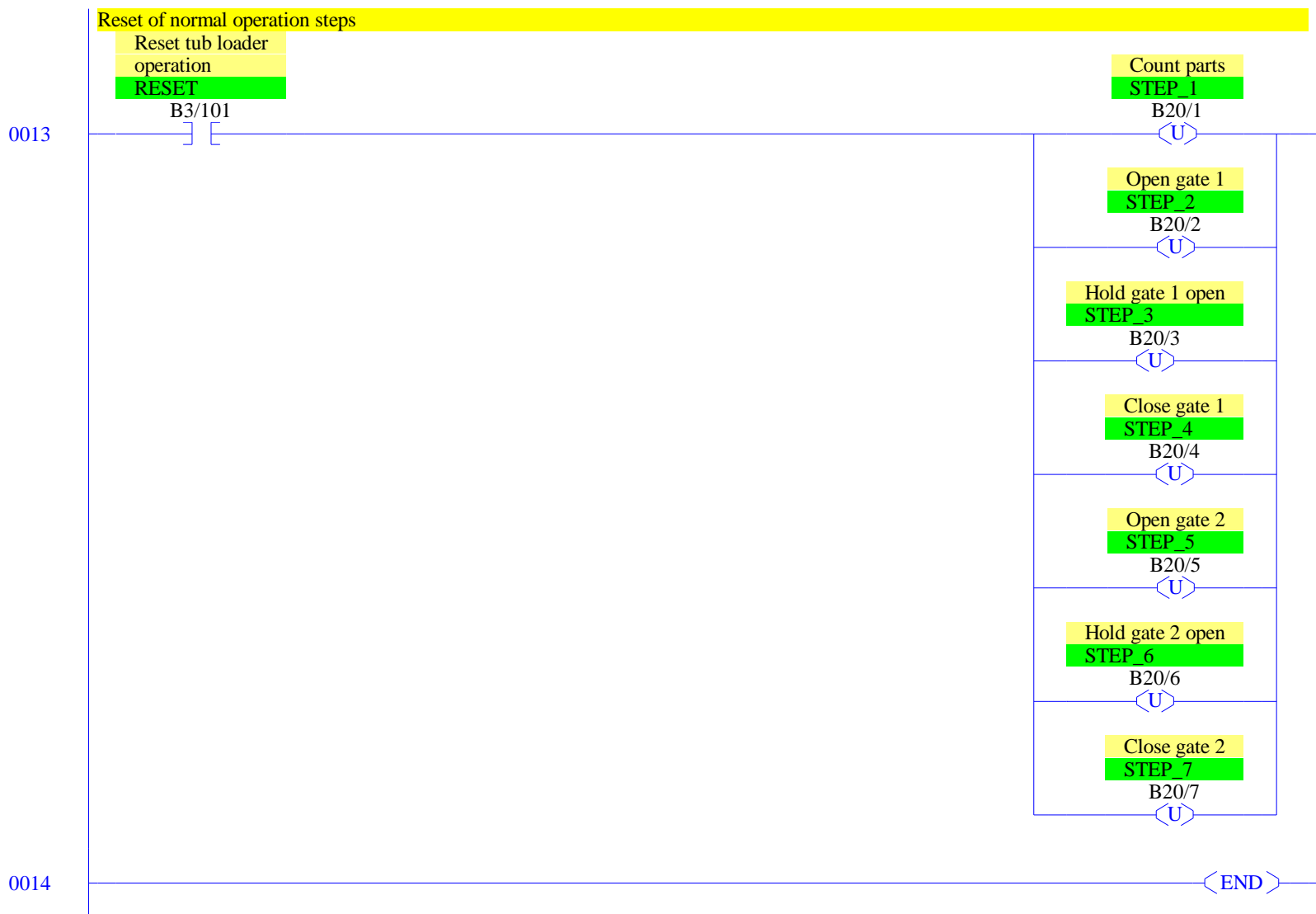
B20/5

B20/5

B20







## RSLogix 500 Cross Reference Report - Sorted by Address

O:2/0	- {BELT_RUN} Belt conveyor control OTE - File #2 - 8
O:2/1	- {TROLL_RUN} Powered roller conveyor control OTE - File #2 - 9
O:2/2	- {GATE1_RET} Gate 1 cylinder retract control OTE - File #2 - 10
O:2/3	- {GATE2_RET} Gate 2 cylinder retract control OTE - File #2 - 11
I:1/2	- {PE272} Photoelectric sensor detecting part XIC - File #2 - 1
I:1/3	- {TUB_PROX} Proximity sensor detecting tub XIC - File #2 - 6 XIO - File #2 - 3
I:1/4	- {GATE1_OPLS} Gate 1 open limit switch XIC - File #2 - 2
I:1/5	- {GATE1_CLLS} Gate 1 closed limit switch XIC - File #2 - 4, 7
I:1/6	- {GATE2_OPLS} Gate 2 open limit switch XIC - File #2 - 5
B3/100	- {RUN} Loading enabled to operate XIC - File #2 - 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 12
B3/101	- {RESET} Reset tub loader operation XIC - File #2 - 13
B3/102	- {TUB_PERMISSIVE} Milling machine is permitted to run OTE - File #2 - 12
T4:1	- {G1_HOLD_TMR} Gate 1 hold open timer RTO - File #2 - 3 RES - File #2 - 3
T4:1/DN	- XIC - File #2 - 3
T4:2	- {G2_HOLD_TMR} Gate 2 hold open timer RTO - File #2 - 6 RES - File #2 - 6
T4:2/DN	- XIC - File #2 - 6
C5:1	- {PART_CTR} Count parts CTU - File #2 - 1 RES - File #2 - 1
C5:1/DN	- XIC - File #2 - 1
B20/1	- {STEP_1} Count parts OTL - File #2 - 0, 7 OTU - File #2 - 1, 13 XIC - File #2 - 1, 8, 12 XIO - File #2 - 0, 1
B20/2	- {STEP_2} Open gate 1 OTL - File #2 - 1 OTU - File #2 - 2, 13 XIC - File #2 - 2, 10 XIO - File #2 - 0
B20/3	- {STEP_3} Hold gate 1 open OTL - File #2 - 2 OTU - File #2 - 3, 13 XIC - File #2 - 3, 9, 10 XIO - File #2 - 0, 3
B20/4	- {STEP_4} Close gate 1 OTL - File #2 - 3 OTU - File #2 - 4, 13 XIC - File #2 - 4 XIO - File #2 - 0
B20/5	- {STEP_5} Open gate 2 OTL - File #2 - 4 OTU - File #2 - 5, 13 XIC - File #2 - 5, 11 XIO - File #2 - 0
B20/6	- {STEP_6} Hold gate 2 open OTL - File #2 - 5 OTU - File #2 - 6, 13 XIC - File #2 - 6, 9, 11

RSLogix 500 Cross Reference Report - Sorted by Address

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B20/7	XIO - File #2 - 0, 6
	- {STEP_7} Close gate 2
	OTL - File #2 - 6
	OTU - File #2 - 7, 13
	XIC - File #2 - 7
	XIO - File #2 - 0