

## Erbia Can Tipper/Rotator Control - With Simulation

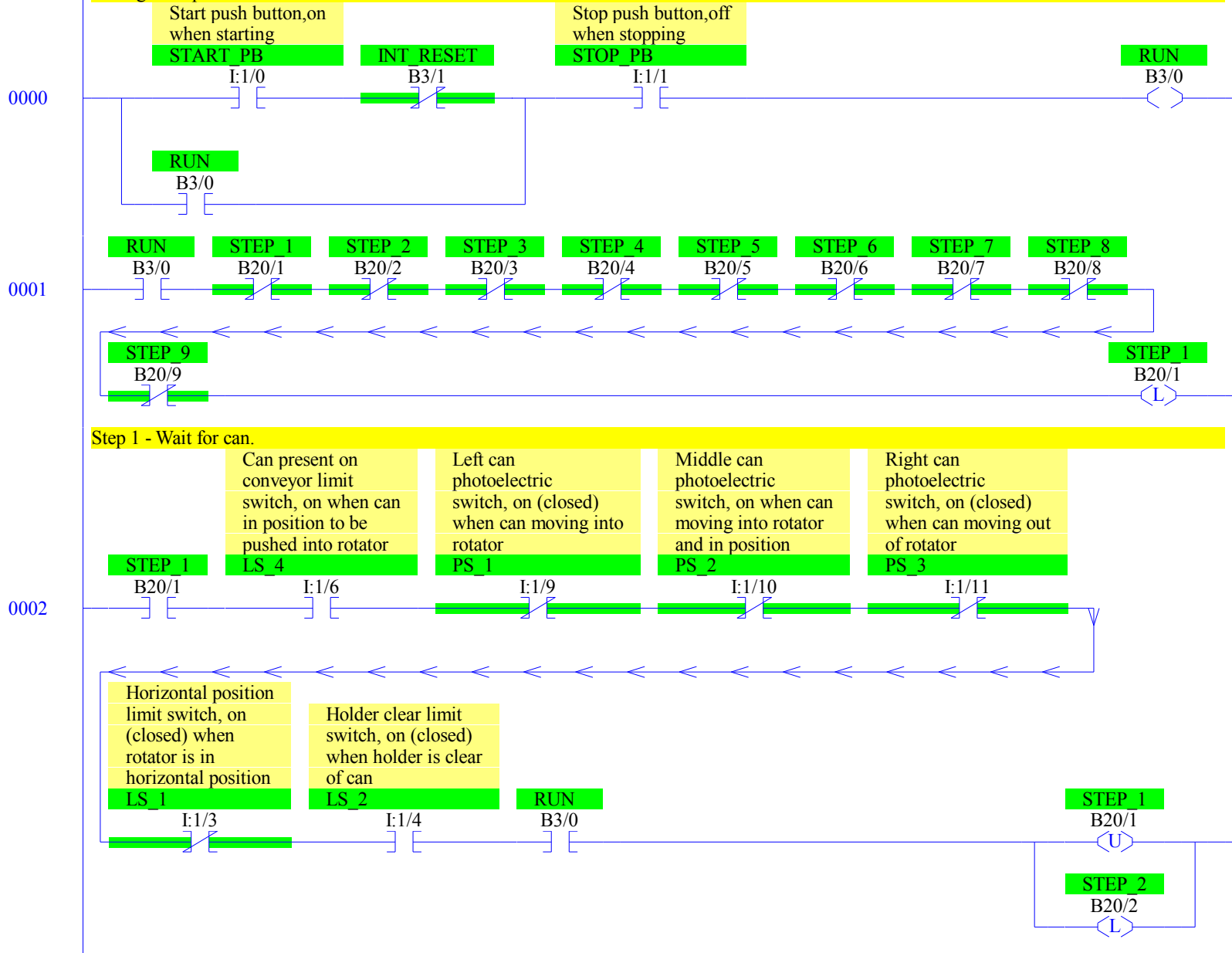
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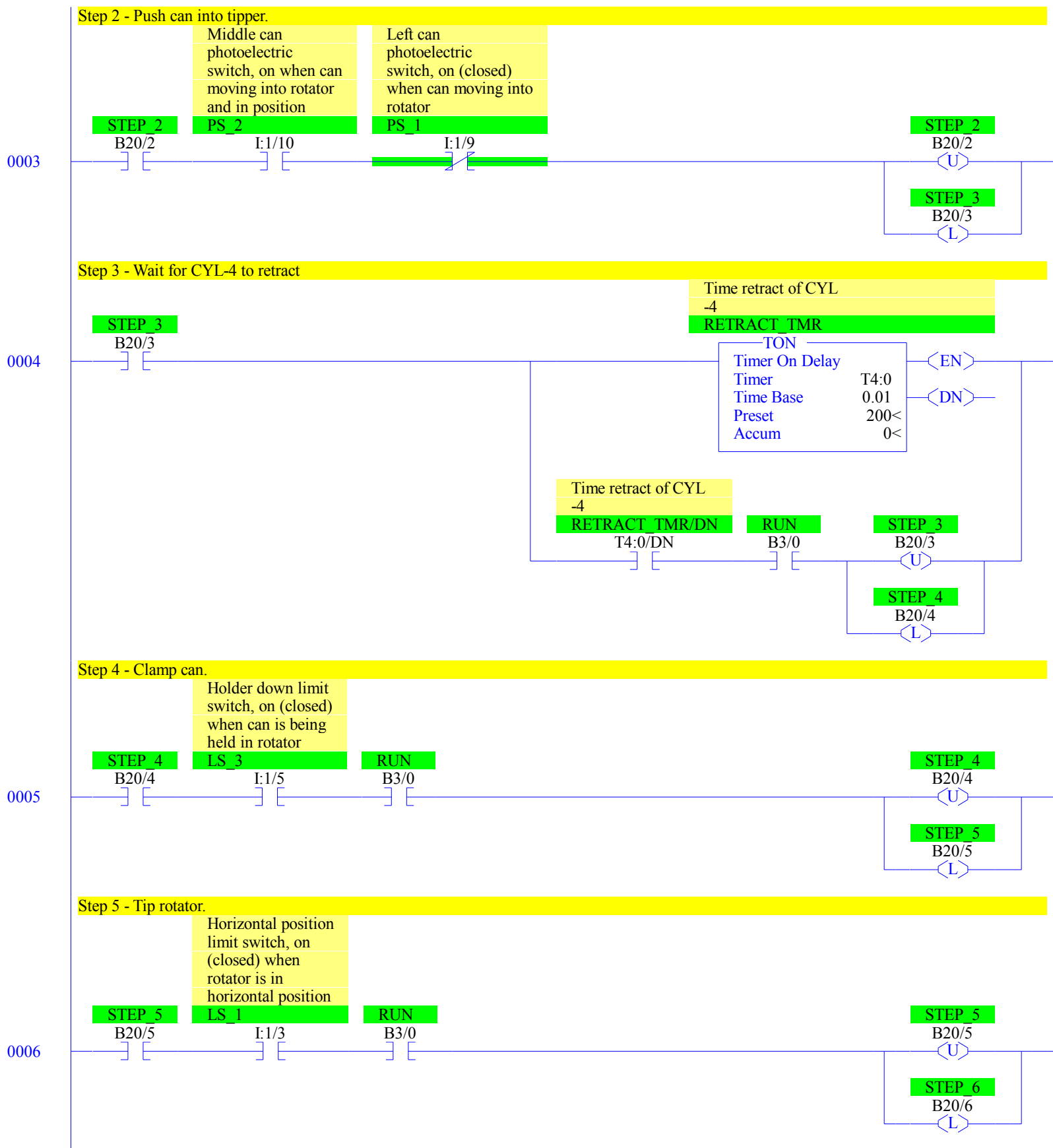
Additional internal memory:

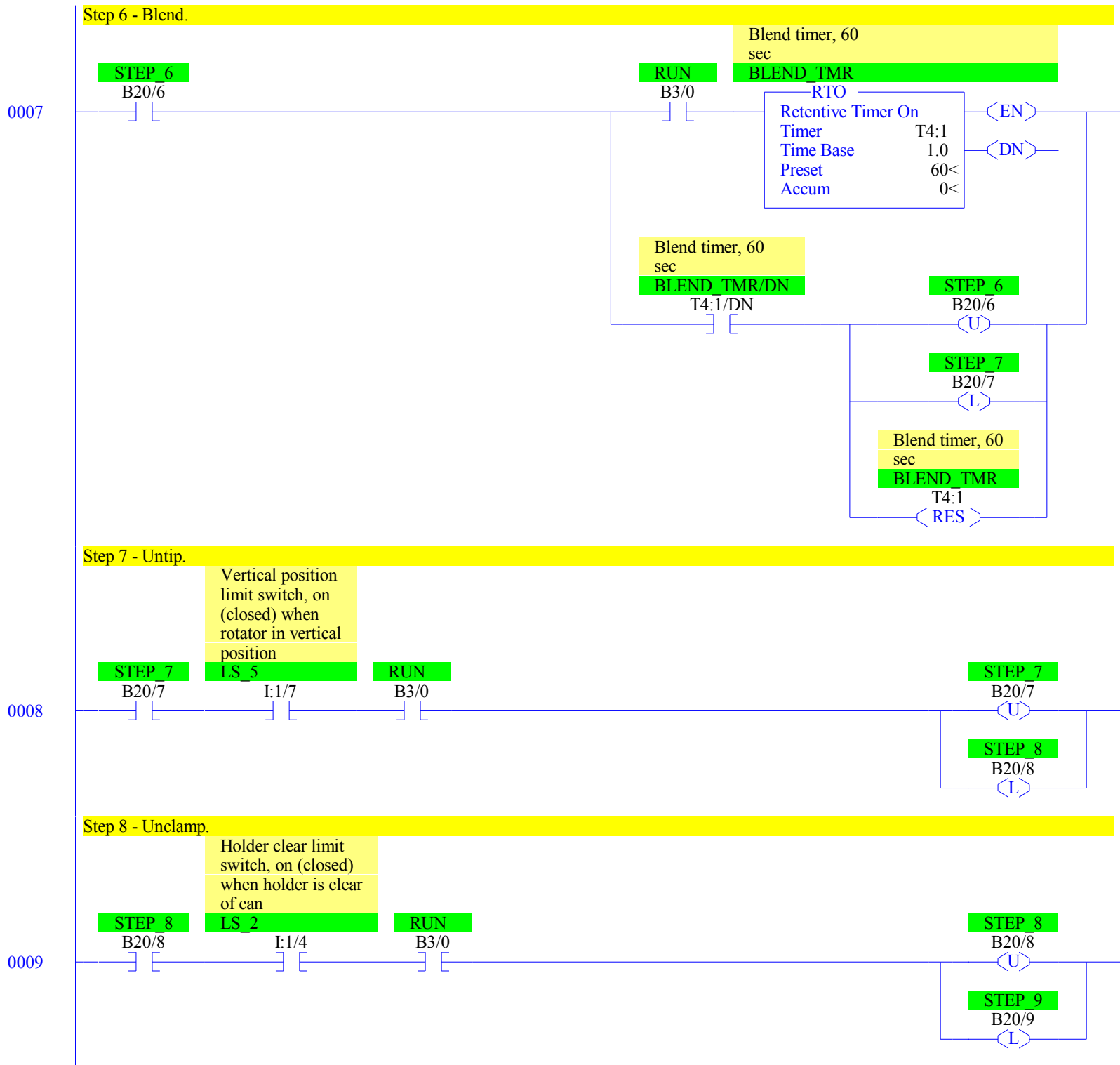
Symbol	Address	
RUN	B3/0	On while station running
INT_RESET	B3/1	Internal reset
STEP_1 to STEP_9	B20/1 to B20/9	Step-in-progress bits
RETRACT_TMR	T4:0	Times retract of CYL-4
BLEND_TMR	T4:1	Times rotation for blend

Start/stop and initial start.

During reset prevent start.







0010

**Step 9 - Push Out.**

CYL\_4 fully extended  
limit switch, on  
when cylinder is  
fully extended,  
pushing can out

**STEP 9****LS\_6**

B20/9

I:1/8

**STEP 9**

B20/9

(U)

**STEP 1**

B20/1

(L)

0011

**Reset**

Reset push button,  
on when restoring  
station to initial  
state

**RESET\_PB**

I:1/2

**RUN**

B3/0

**INT RESET**

B3/1

**INT RESET**

B3/1

Vertical position  
limit switch, on  
(closed) when  
rotator in vertical  
position

**LS\_5**

I:1/7

Holder clear limit  
switch, on (closed)  
when holder is clear  
of can

**LS\_2**

I:1/4

CYL\_4 fully extended  
limit switch, on  
when cylinder is  
fully extended,  
pushing can out

**LS\_6**

I:1/8

**STEP 1**

B20/1

(U)

**STEP 2**

B20/2

(U)

**STEP 3**

B20/3

(U)

**STEP 4**

B20/4

(U)

**STEP 5**

B20/5

(U)

**STEP 6**

B20/6

(U)

**STEP 7**

B20/7

(U)

**STEP 8**

B20/8

(U)

Blend timer, 60  
sec

**BLEND\_TMR**

T4:1

(RES)

## Physical Outputs

Can not turn off CYL\_1, CYL\_2, or CYL\_3 when paused.

On reset, do not unclamp until in vertical position.

Can holder cylinder  
control, on to clamp  
can into rotator

CYL\_1

O:2/0

STEP 4

B20/4

STEP 5

B20/5

STEP 6

B20/6

STEP 7

B20/7

Vertical position  
limit switch, on  
(closed) when  
rotator in vertical  
position

INT RESET

B3/1

LS\_5

I:1/7

Tipper cylinder  
control, on to tip  
rotator

CYL\_2

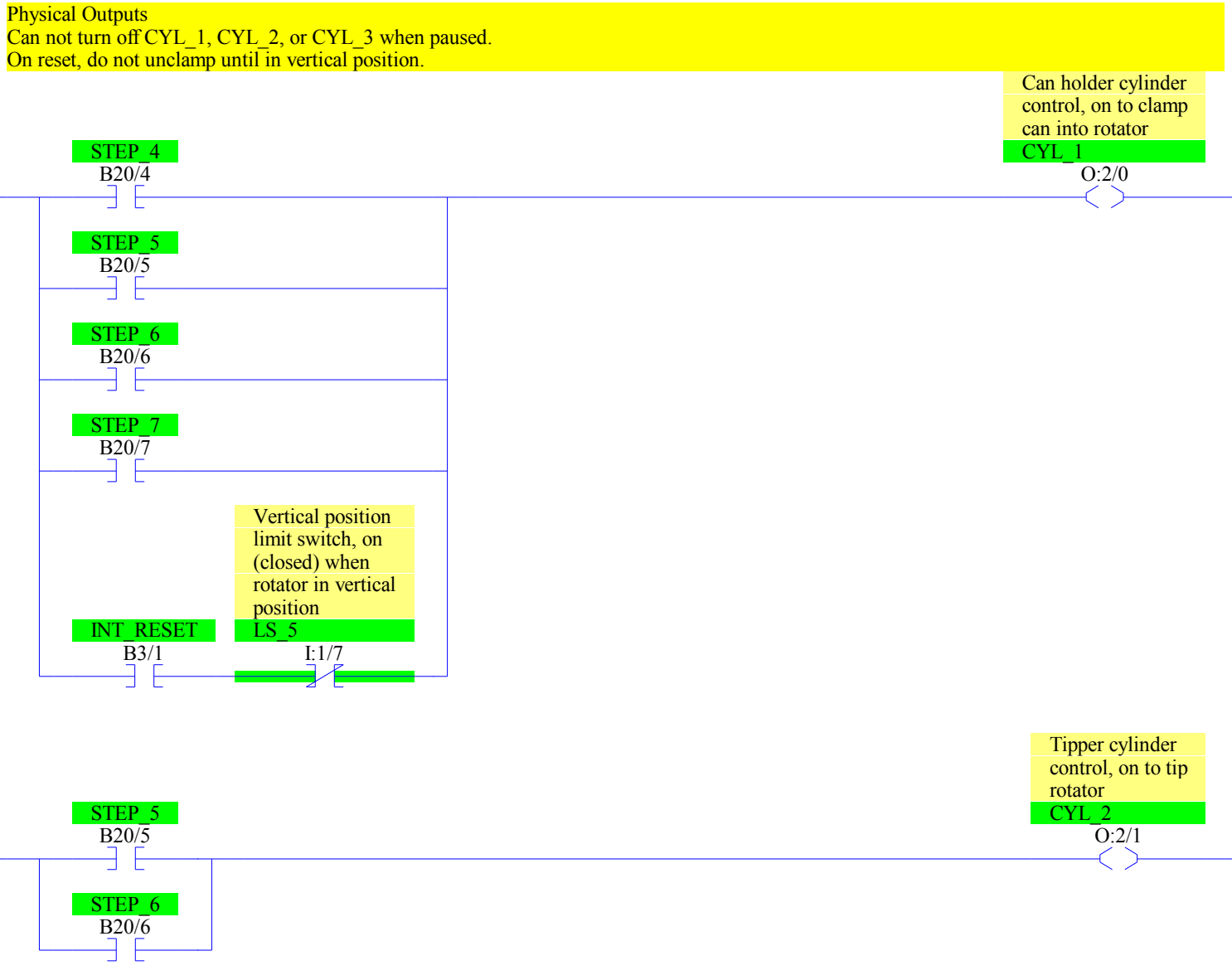
O:2/1

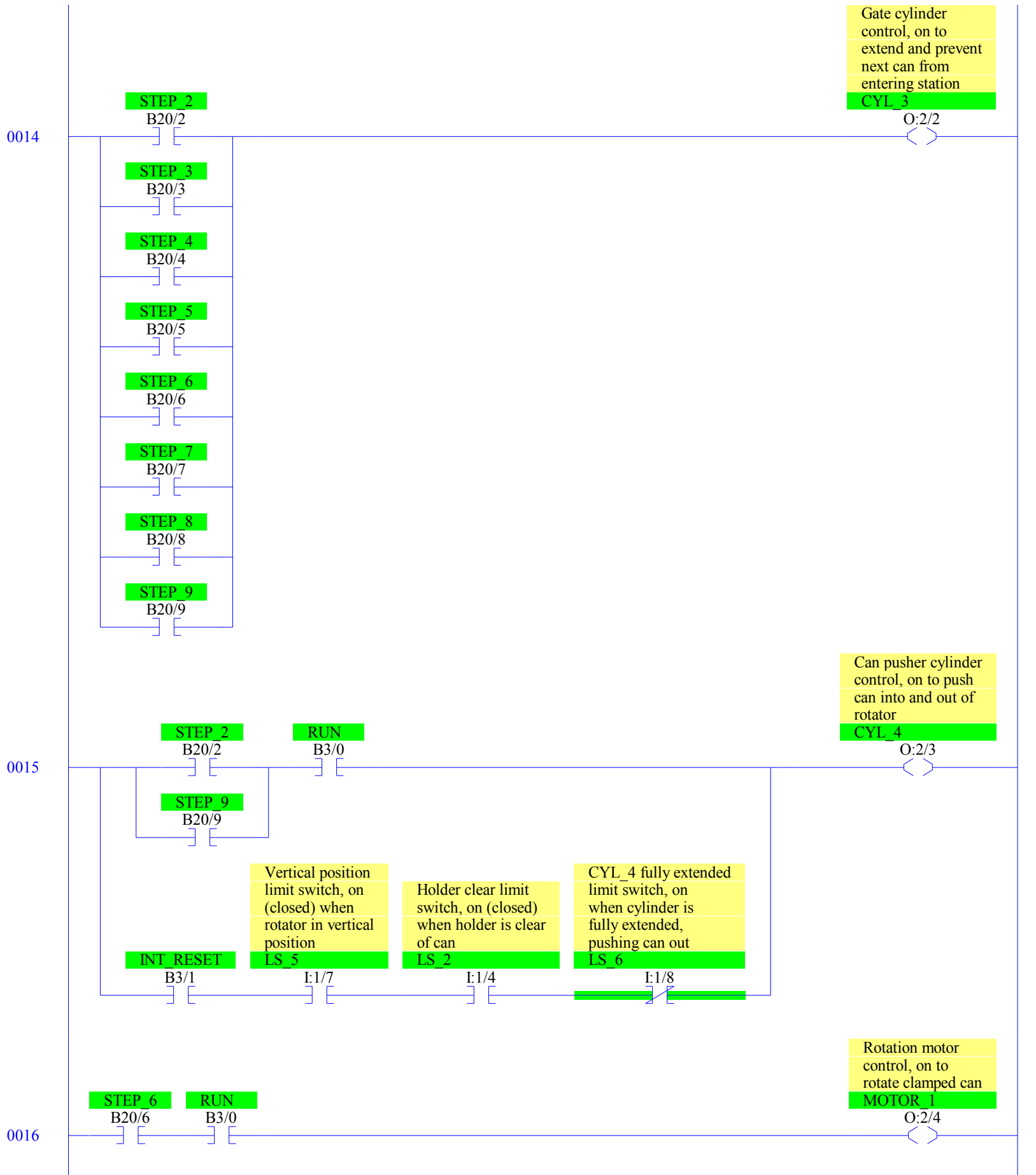
STEP 5

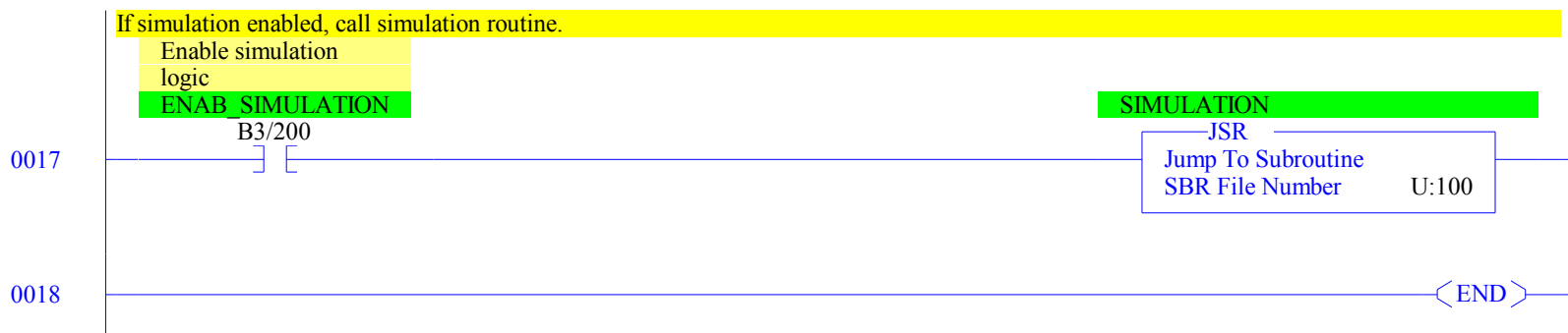
B20/5

STEP 6

B20/6







## Simulation of erbia can tipper/rotator

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Horizontal/vertical limit switch simulation: Turn on LS\_1 when CYL\_2 on for 3 secs. Turn on LS\_5 when CYL\_2 off for 3 secs.

Tipper cylinder  
control, on to tip  
rotator

CYL\_2

O:2/1

SIM\_TMR\_0

TON

Timer On Delay

Timer

T200:0

Time Base

0.01

Preset

300&lt;

Accum

0&lt;

&lt;EN&gt;

&lt;DN&gt;

Horizontal position  
limit switch, on  
(closed) when  
rotator is in  
horizontal position

SIM\_TMR\_0/DN

T200:0/DN

I:1/3

Tipper cylinder  
control, on to tip  
rotator

CYL\_2

O:2/1

SIM\_TMR\_1

TON

Timer On Delay

Timer

T200:1

Time Base

0.01

Preset

300&lt;

Accum

300&lt;

&lt;EN&gt;

&lt;DN&gt;

Vertical position  
limit switch, on  
(closed) when  
rotator in vertical  
position

SIM\_TMR\_1/DN

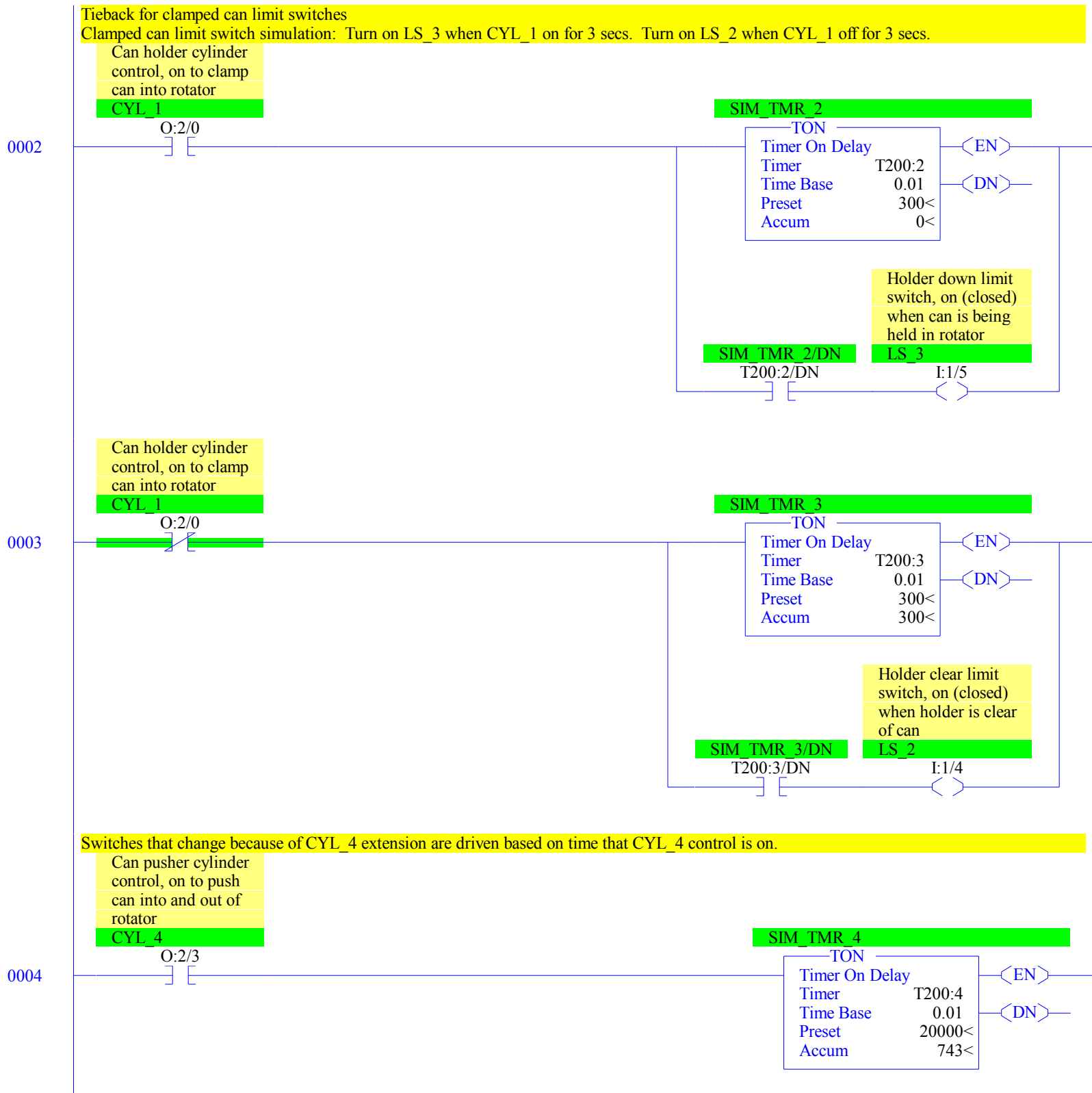
T200:1/DN

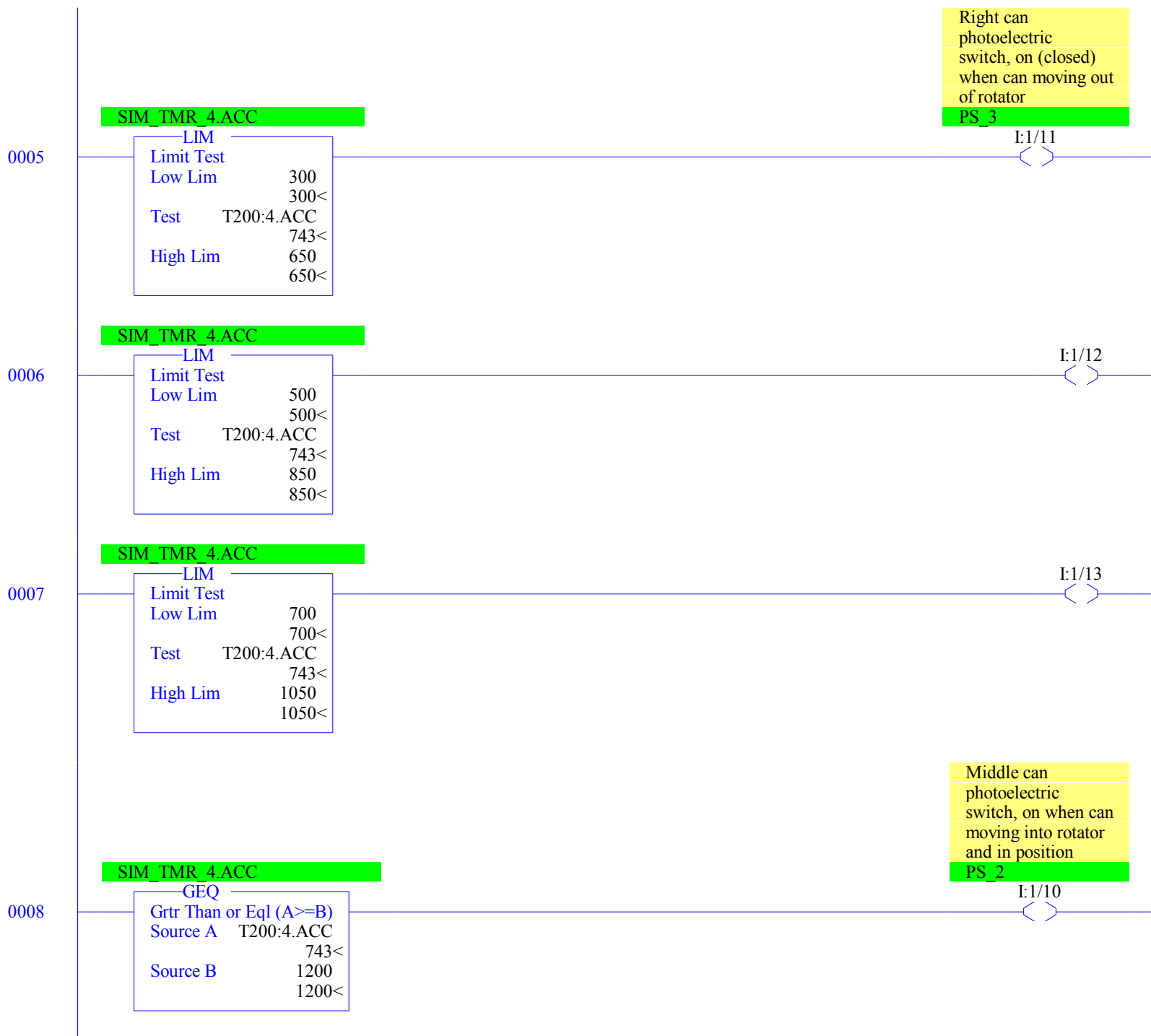
I:1/7

0000

0001

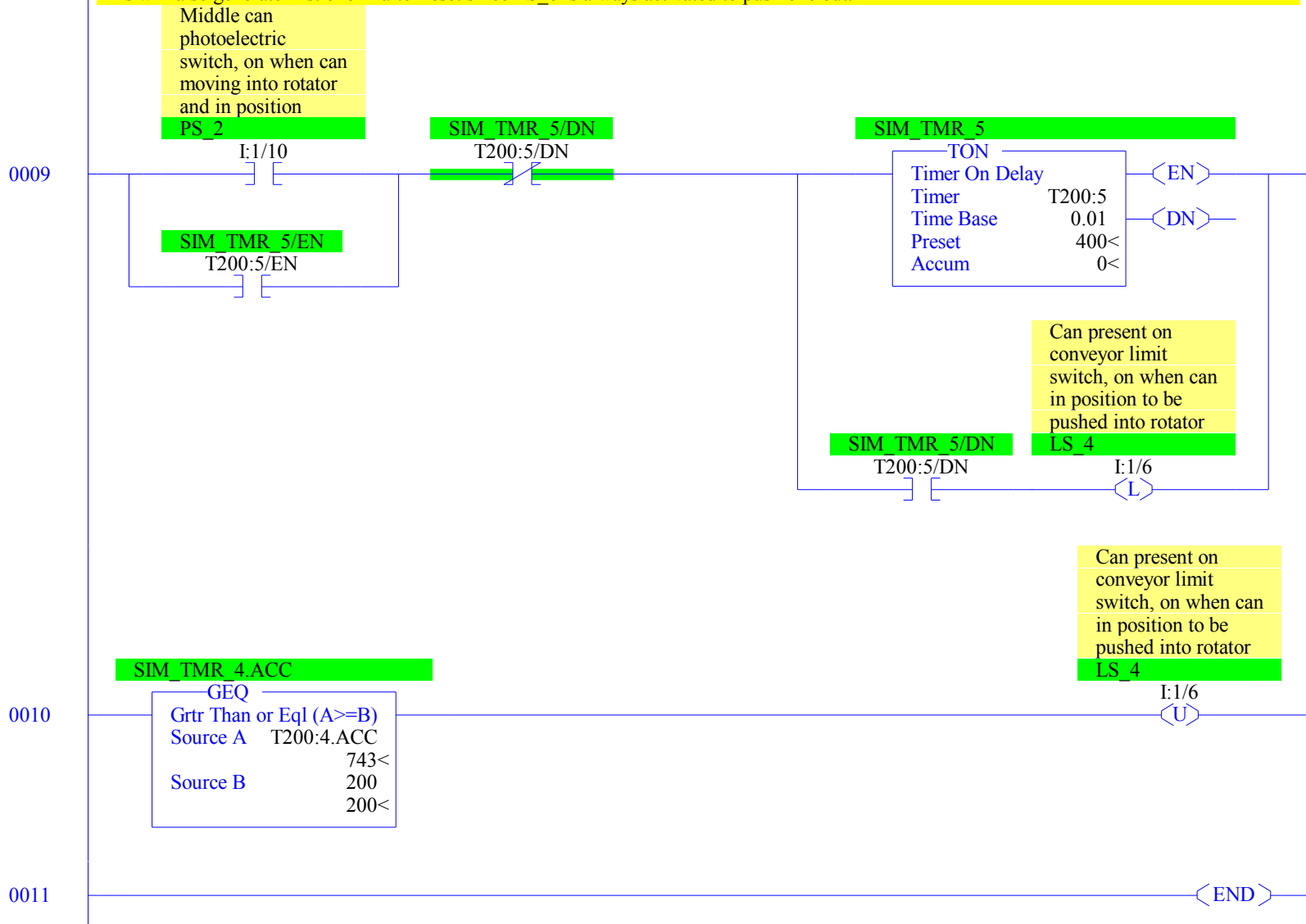






Simulate next one in 4 sec after LS\_6 is activated.  
Unlatch 2 seconds after CYL\_4 activated.

This will also generate first one in after reset since LS\_6 is always activated to push one out.



## RSLogix 500 Cross Reference Report - Sorted by Address

```

O:2/0      - {CYL_1} Can holder cylinder control, on to clamp can into
             rotator
             OTE - File #2 - 12
             XIC - File #100 SIMULATE - 2
             XIO - File #100 SIMULATE - 3
O:2/1      - {CYL_2} Tipper cylinder control, on to tip rotator
             OTE - File #2 - 13
             XIC - File #100 SIMULATE - 0
             XIO - File #100 SIMULATE - 1
O:2/2      - {CYL_3} Gate cylinder control, on to extend and prevent next
             can from entering station
             OTE - File #2 - 14
O:2/3      - {CYL_4} Can pusher cylinder control, on to push can into and
             out of rotator
             OTE - File #2 - 15
             XIC - File #100 SIMULATE - 4
O:2/4      - {MOTOR_1} Rotation motor control, on to rotate clamped can
             OTE - File #2 - 16
I:1/0      - {START_PB} Start push button, on when starting
             XIC - File #2 - 0
I:1/1      - {STOP_PB} Stop push button, off when stopping
             XIC - File #2 - 0
I:1/2      - {RESET_PB} Reset push button, on when restoring station to
             initial state
             XIC - File #2 - 11
I:1/3      - {LS_1} Horizontal position limit switch, on (closed) when
             rotator is in horizontal position
             OTE - File #100 SIMULATE - 0
             XIC - File #2 - 6
             XIO - File #2 - 2
I:1/4      - {LS_2} Holder clear limit switch, on (closed) when holder is
             clear of can
             OTE - File #100 SIMULATE - 3
             XIC - File #2 - 2, 9, 15
             XIO - File #2 - 11
I:1/5      - {LS_3} Holder down limit switch, on (closed) when can is
             being held in rotator
             OTE - File #100 SIMULATE - 2
             XIC - File #2 - 5
I:1/6      - {LS_4} Can present on conveyor limit switch, on when can in
             position to be pushed into rotator
             OTL - File #100 SIMULATE - 9
             OTU - File #100 SIMULATE - 10
             XIC - File #2 - 2
I:1/7      - {LS_5} Vertical position limit switch, on (closed) when
             rotator in vertical position
             OTE - File #100 SIMULATE - 1
             XIC - File #2 - 8, 15
             XIO - File #2 - 11, 12
I:1/8      - {LS_6} CYL 4 fully extended limit switch, on when cylinder
             is fully extended, pushing can out
             XIC - File #2 - 10
             XIO - File #2 - 11, 15
I:1/9      - {PS_1} Left can photoelectric switch, on (closed) when can
             moving into rotator
             XIO - File #2 - 2, 3
I:1/10     - {PS_2} Middle can photoelectric switch, on when can moving
             into rotator and in position
             OTE - File #100 SIMULATE - 8
             XIC - File #2 - 3
                   File #100 SIMULATE - 9
             XIO - File #2 - 2
I:1/11     - {PS_3} Right can photoelectric switch, on (closed) when can
             moving out of rotator
             OTE - File #100 SIMULATE - 5
             XIO - File #2 - 2

```

## RSLogix 500 Cross Reference Report - Sorted by Address

I:1/12	- OTE - File #100 SIMULATE - 6
I:1/13	- OTE - File #100 SIMULATE - 7
B3/0	- {RUN}
	OTE - File #2 - 0
	XIC - File #2 - 0, 1, 2, 4, 5, 6, 7, 8, 9, 15, 16
	XIO - File #2 - 11
B3/1	- {INT_RESET}
	OTE - File #2 - 11
	XIC - File #2 - 11, 12, 15
	XIO - File #2 - 0
B3/200	- {ENAB_SIMULATION} Enable simulation logic
	XIC - File #2 - 17
T4:0	- {RETRACT TMR} Time retract of CYL -4
	TON - File #2 - 4
T4:0/DN	- XIC - File #2 - 4
T4:1	- {BLEND_TMR} Blend timer, 60 sec
	RTO - File #2 - 7
	RES - File #2 - 7, 11
T4:1/DN	- XIC - File #2 - 7
B20/1	- {STEP_1}
	OTL - File #2 - 1, 10
	OTU - File #2 - 2, 11
	XIC - File #2 - 2
	XIO - File #2 - 1
B20/2	- {STEP_2}
	OTL - File #2 - 2
	OTU - File #2 - 3, 11
	XIC - File #2 - 3, 14, 15
	XIO - File #2 - 1
B20/3	- {STEP_3}
	OTL - File #2 - 3
	OTU - File #2 - 4, 11
	XIC - File #2 - 4, 14
	XIO - File #2 - 1
B20/4	- {STEP_4}
	OTL - File #2 - 4
	OTU - File #2 - 5, 11
	XIC - File #2 - 5, 12, 14
	XIO - File #2 - 1
B20/5	- {STEP_5}
	OTL - File #2 - 5
	OTU - File #2 - 6, 11
	XIC - File #2 - 6, 12, 13, 14
	XIO - File #2 - 1
B20/6	- {STEP_6}
	OTL - File #2 - 6
	OTU - File #2 - 7, 11
	XIC - File #2 - 7, 12, 13, 14, 16
	XIO - File #2 - 1
B20/7	- {STEP_7}
	OTL - File #2 - 7
	OTU - File #2 - 8, 11
	XIC - File #2 - 8, 12, 14
	XIO - File #2 - 1
B20/8	- {STEP_8}
	OTL - File #2 - 8
	OTU - File #2 - 9, 11
	XIC - File #2 - 9, 14
	XIO - File #2 - 1
B20/9	- {STEP_9}
	OTL - File #2 - 9
	OTU - File #2 - 10
	XIC - File #2 - 10, 14, 15
	XIO - File #2 - 1
T200:0	- {SIM_TMR_0}
	TON - File #100 SIMULATE - 0

## RSLogix 500 Cross Reference Report - Sorted by Address

```

T200:0/DN      - XIC - File #100 SIMULATE - 0
T200:1         - {SIM_TMR_1}
                TON - File #100 SIMULATE - 1
T200:1/DN      - XIC - File #100 SIMULATE - 1
T200:2         - {SIM_TMR_2}
                TON - File #100 SIMULATE - 2
T200:2/DN      - XIC - File #100 SIMULATE - 2
T200:3         - {SIM_TMR_3}
                TON - File #100 SIMULATE - 3
T200:3/DN      - XIC - File #100 SIMULATE - 3
T200:4         - {SIM_TMR_4}
                TON - File #100 SIMULATE - 4
T200:4.ACC     - GEQ - File #100 SIMULATE - 8, 10
                LIM - File #100 SIMULATE - 5, 6, 7
T200:5         - {SIM_TMR_5}
                TON - File #100 SIMULATE - 9
T200:5/DN      - XIC - File #100 SIMULATE - 9
                XIO - File #100 SIMULATE - 9
T200:5/EN      - XIC - File #100 SIMULATE - 9
U:100         - {SIMULATION}
                JSR - File #2 - 17

```