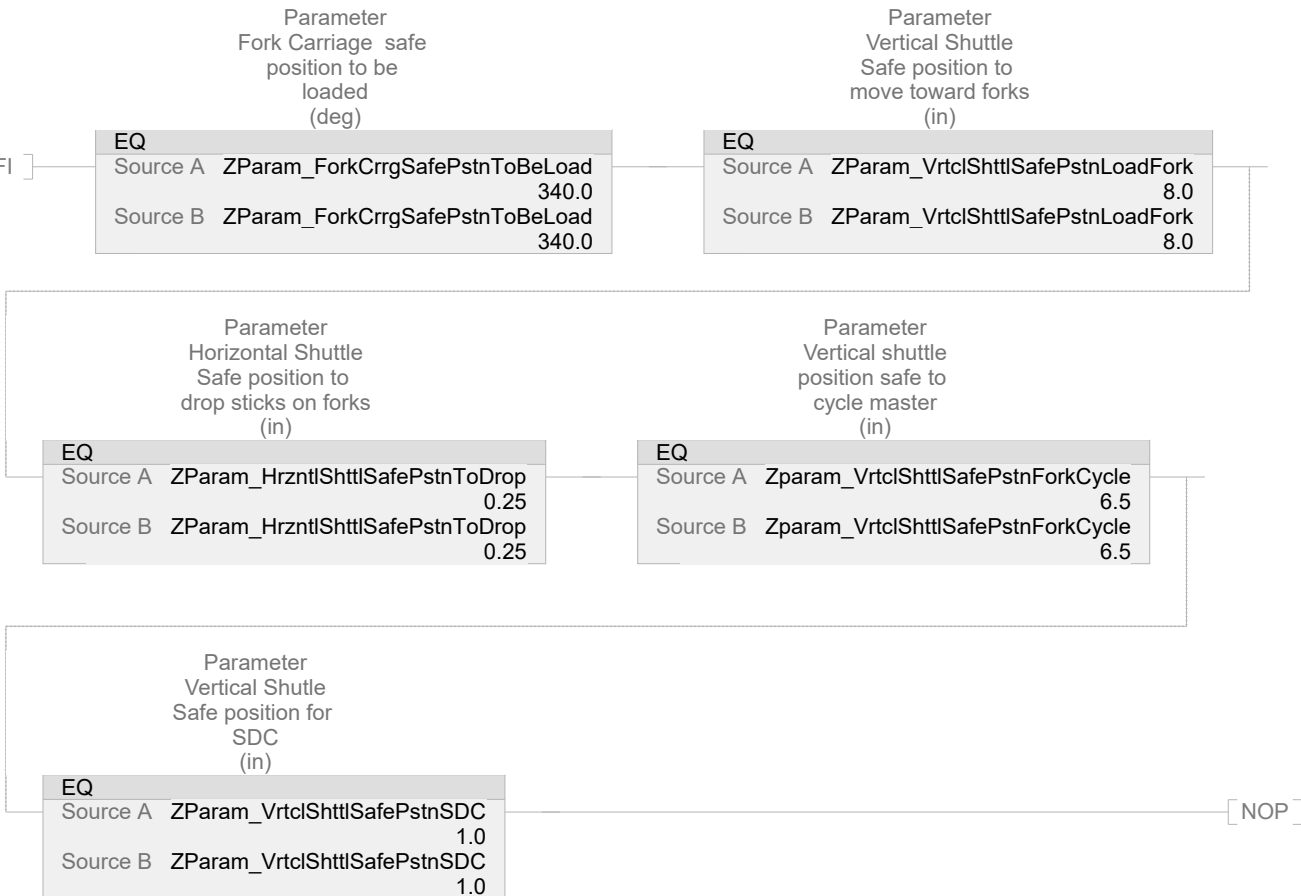


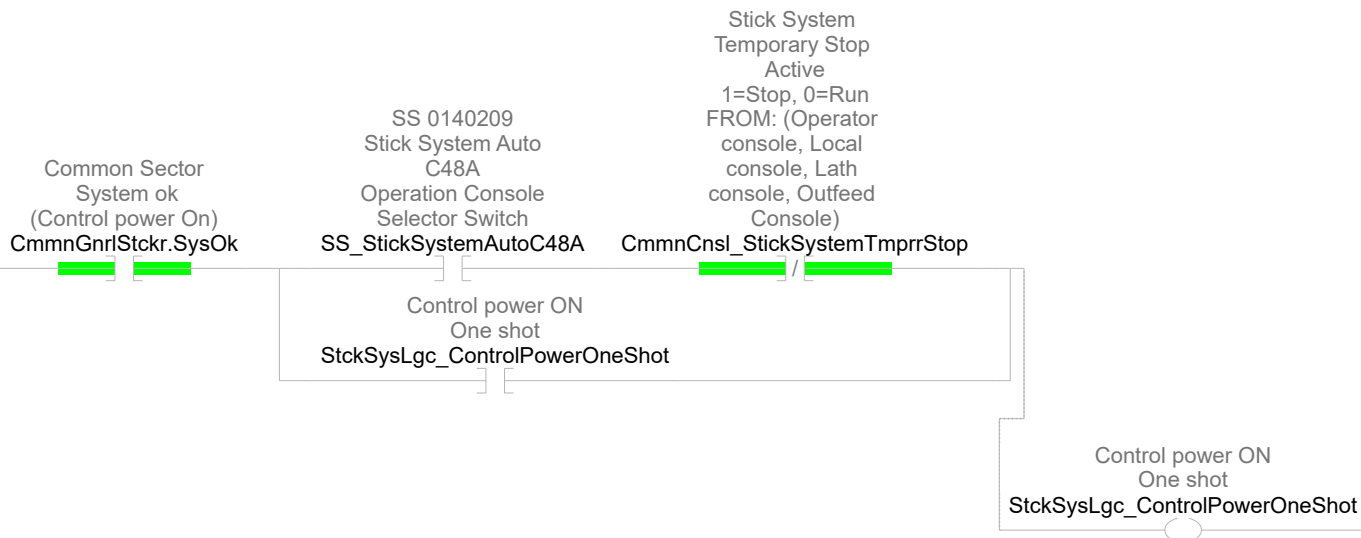
CONFIGURATION

1

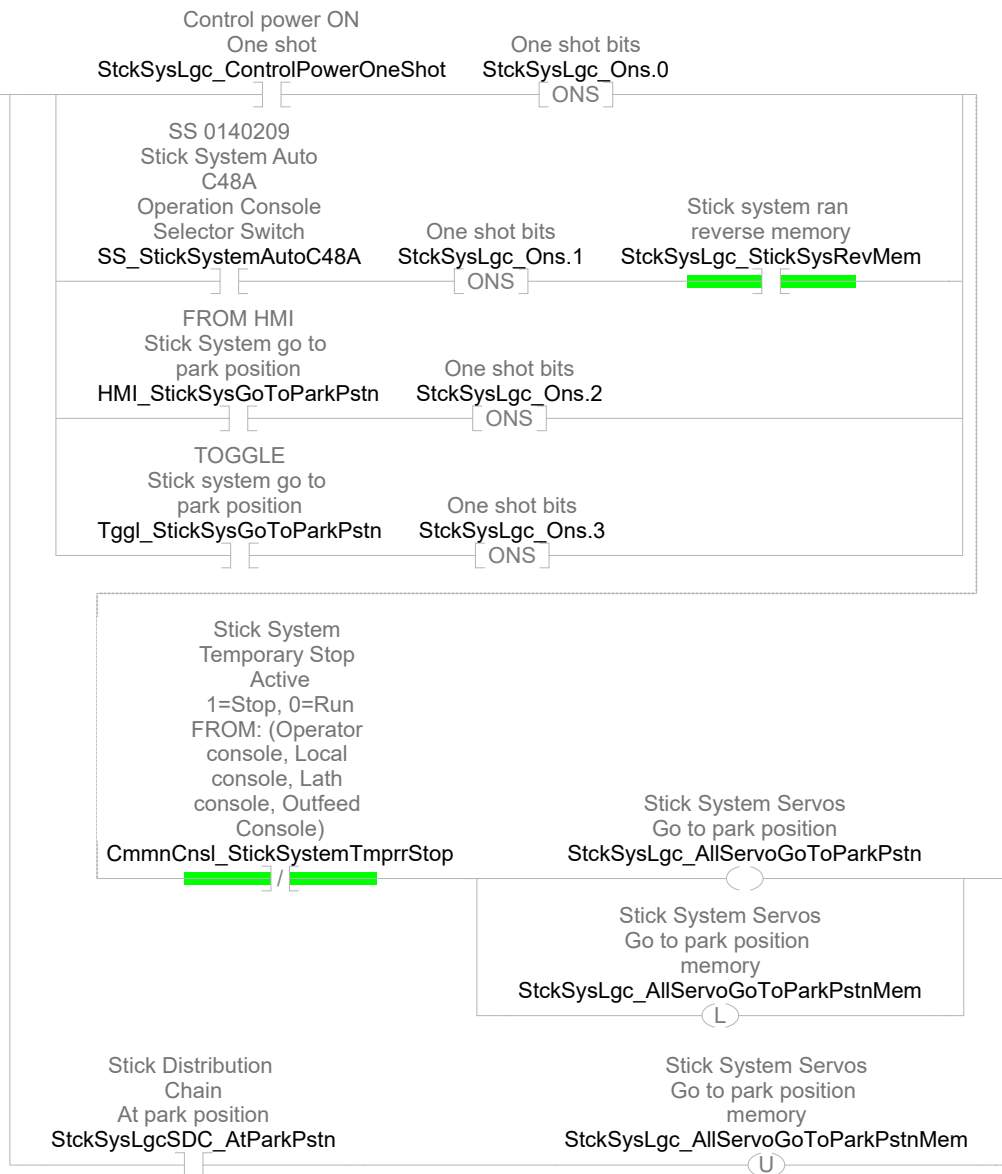


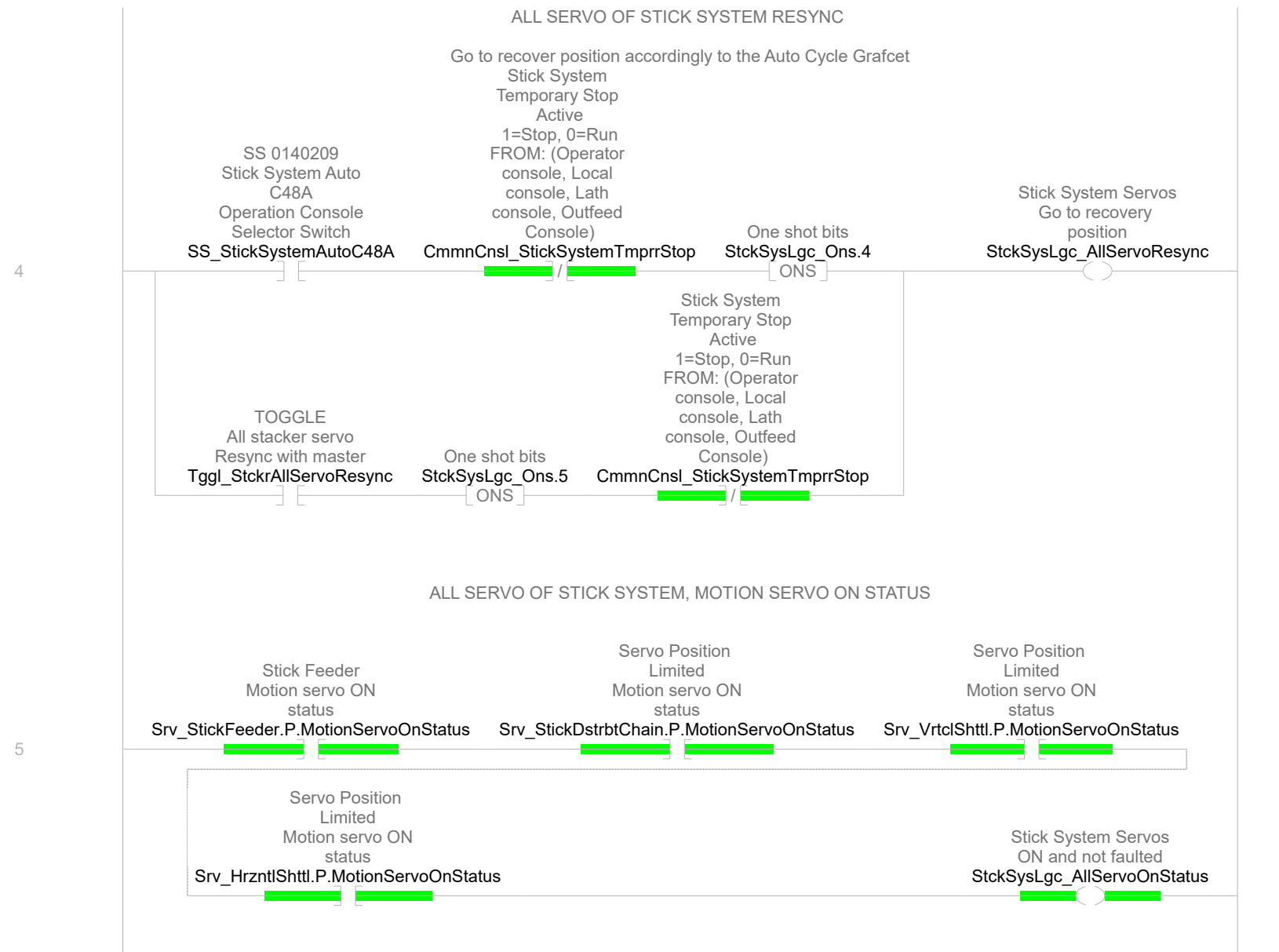
Control power, Temporary stop & Auto selector. It remains ON until control power is turned OFF.

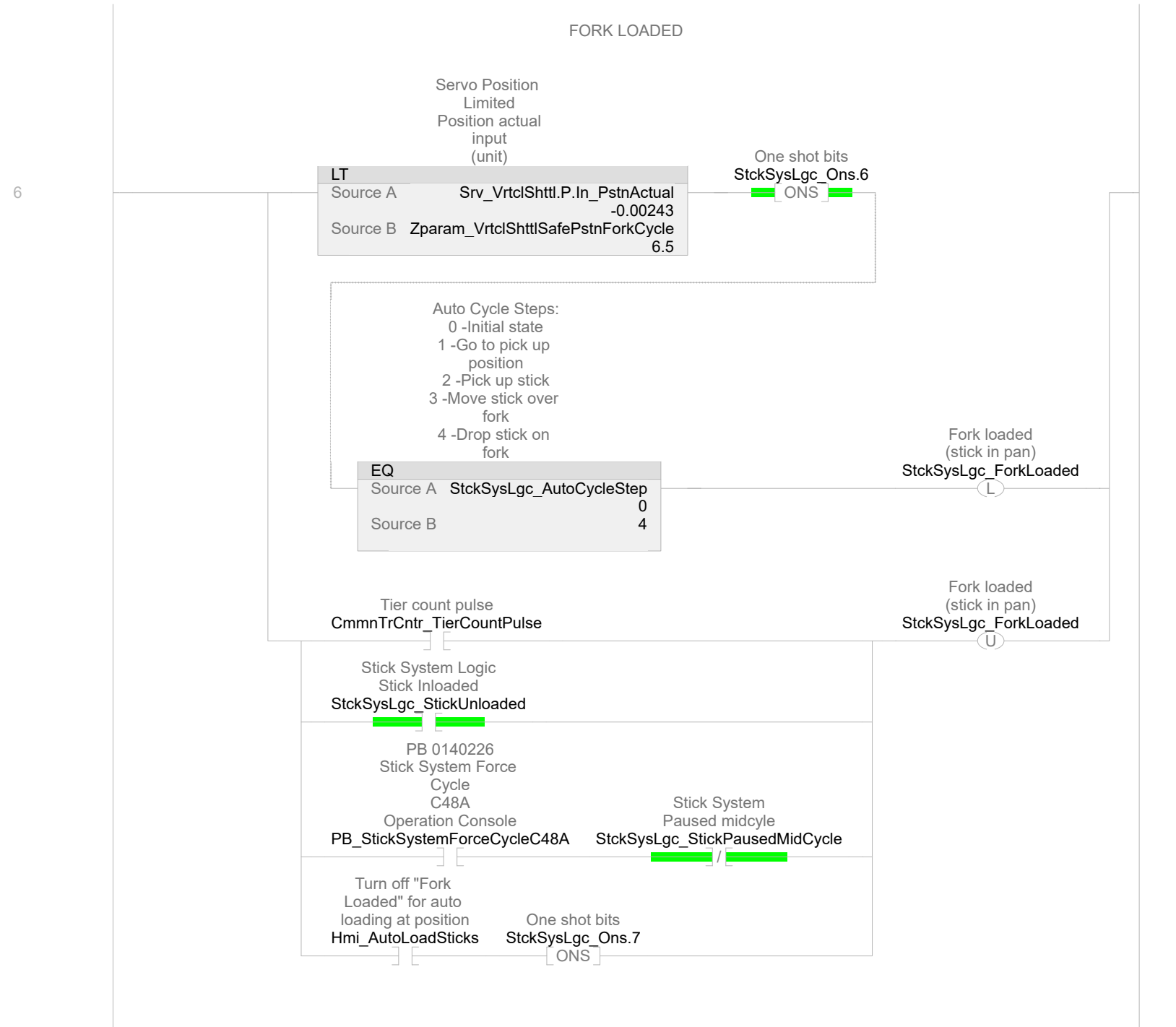
2



ALL SERVO OF STICK SYSTEM GO TO START POSITION







7

STICK SYSTEM RAN REVERSE MEMORY

SS 0140210
Stick System Reverse
C48A
Operation Console
Selector Switch
SS_StickSystemRevC48A

Servo Position
Limited
Running status
reverse
Srv_StickDstrbtChain.P.RunStatusRev

Stick system ran
reverse memory
StckSysLgc_StickSysRevMem

Stick System
Preload sequence
StckSysLgcSDC_PreLoadSqnc

PB 0140226
Stick System Force
Cycle
C48A
Operation Console
PB_StickSystemForceCycleC48A

One shot bits
StckSysLgc_Ons.8

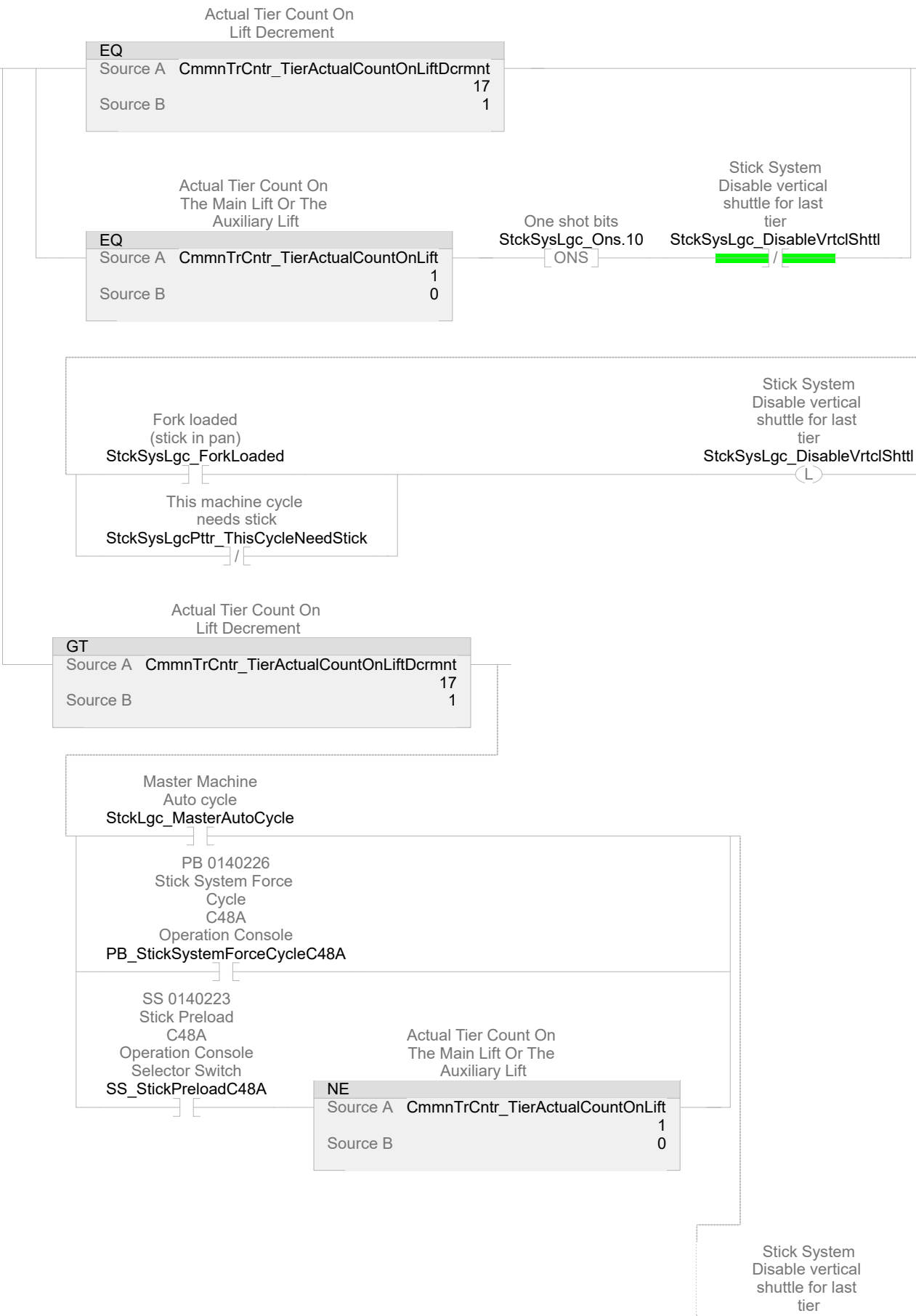
Stick system ran
reverse memory
StckSysLgc_StickSysRevMem

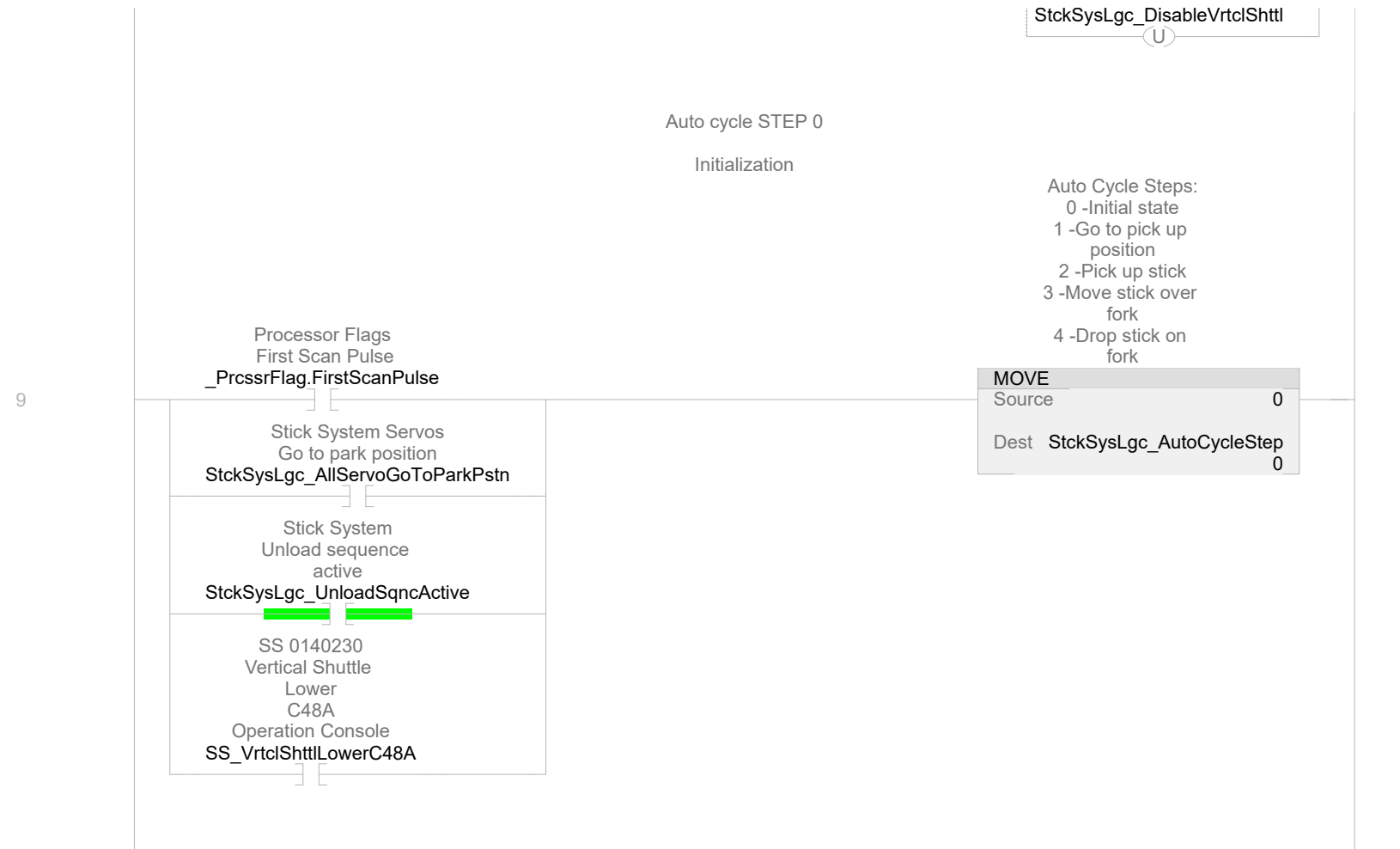
Stick System
Preload sequence
StckSysLgcSDC_PreLoadSqnc

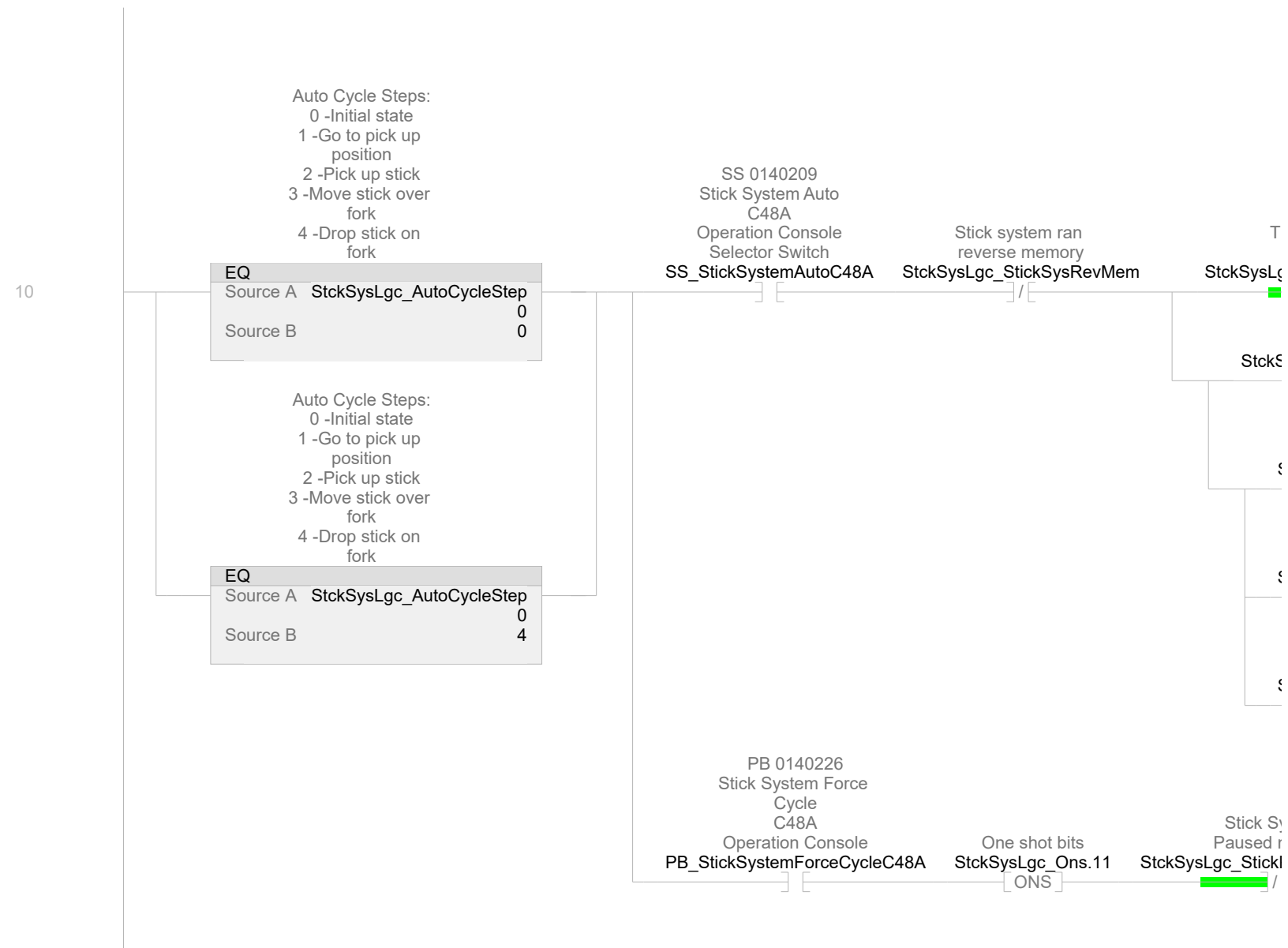
One shot bits
StckSysLgc_Ons.9

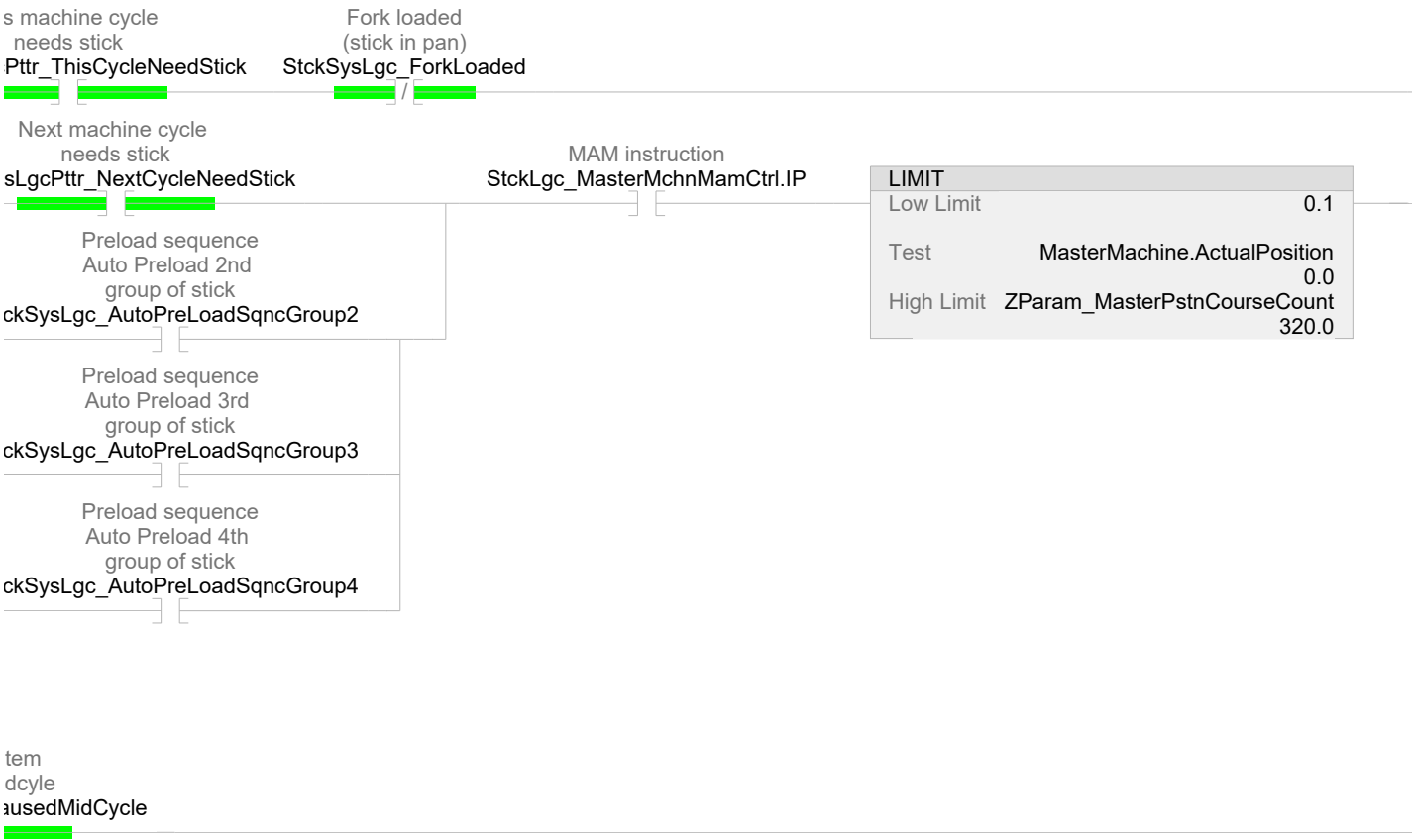
8

DISABLE VERTICAL SHUTTLE ON THE VERY LAST CYCLE OF THE BUNDLE
(First cycle of the next bundle doesn't need stick)





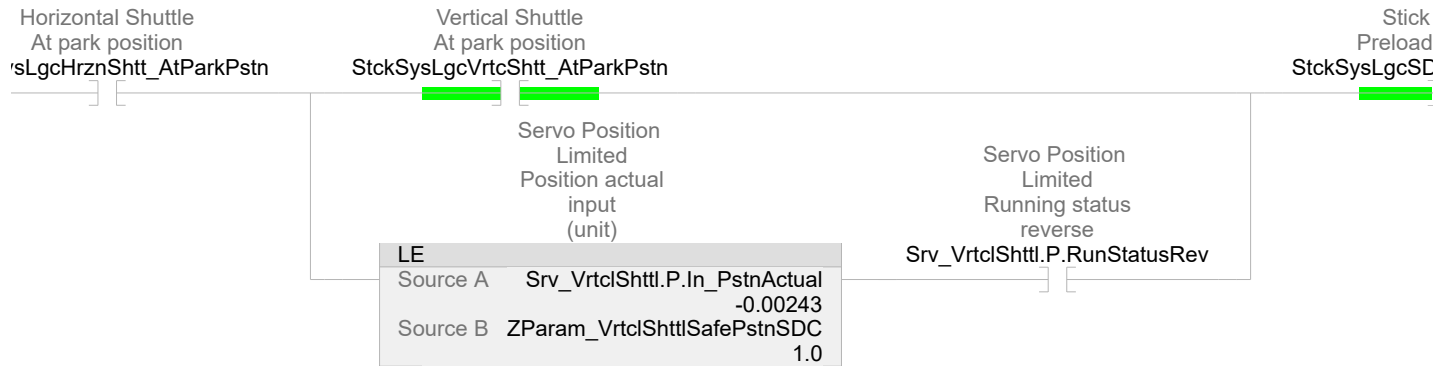


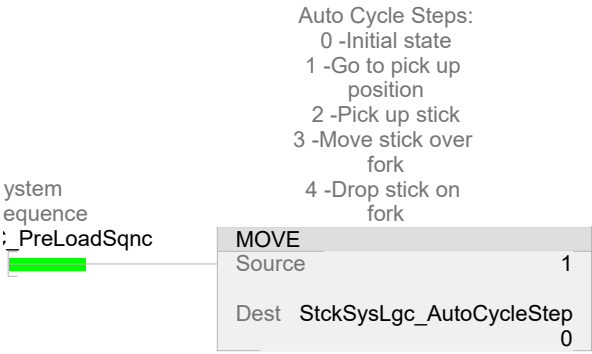


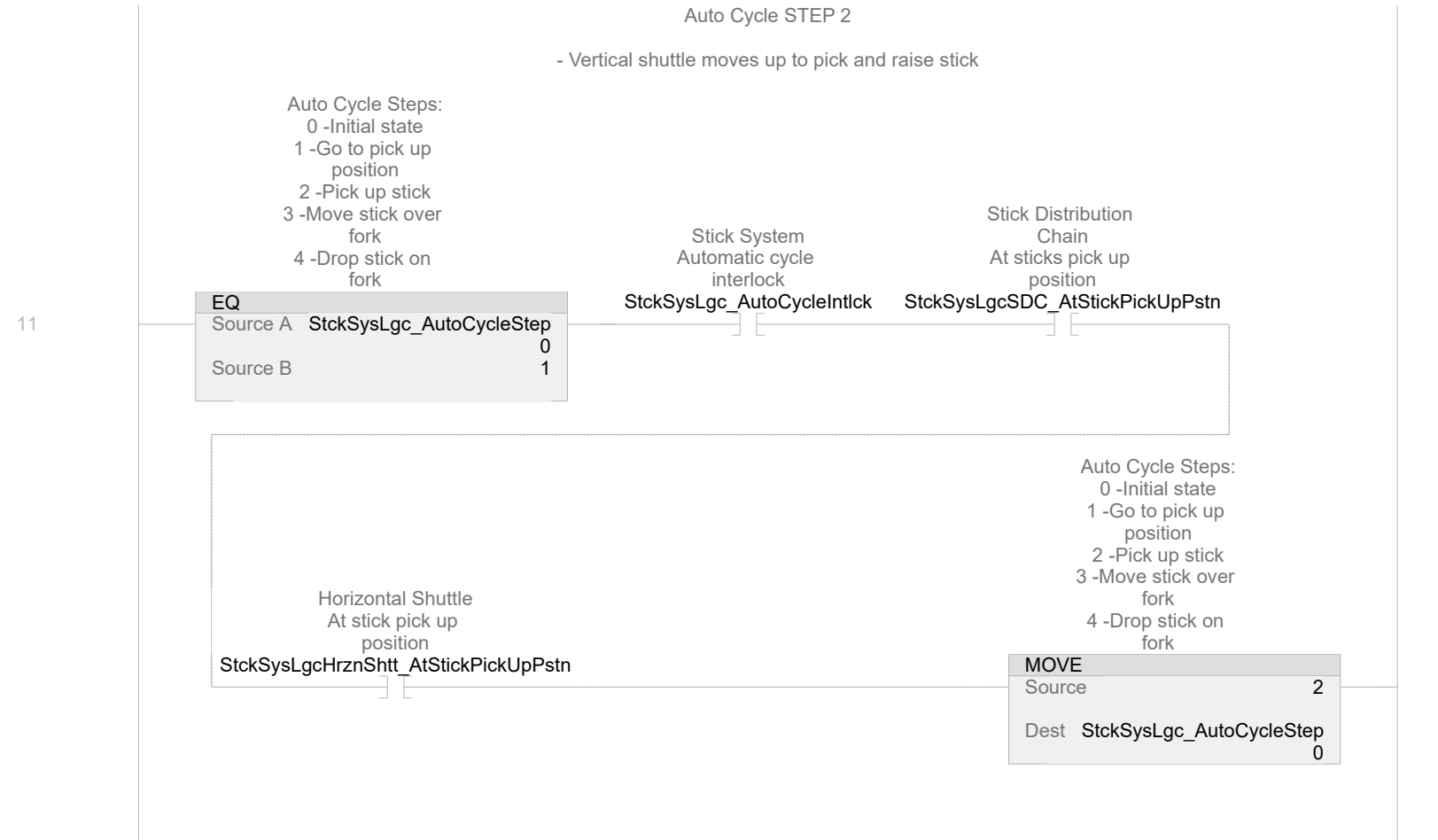
Auto Cycle STEP 1

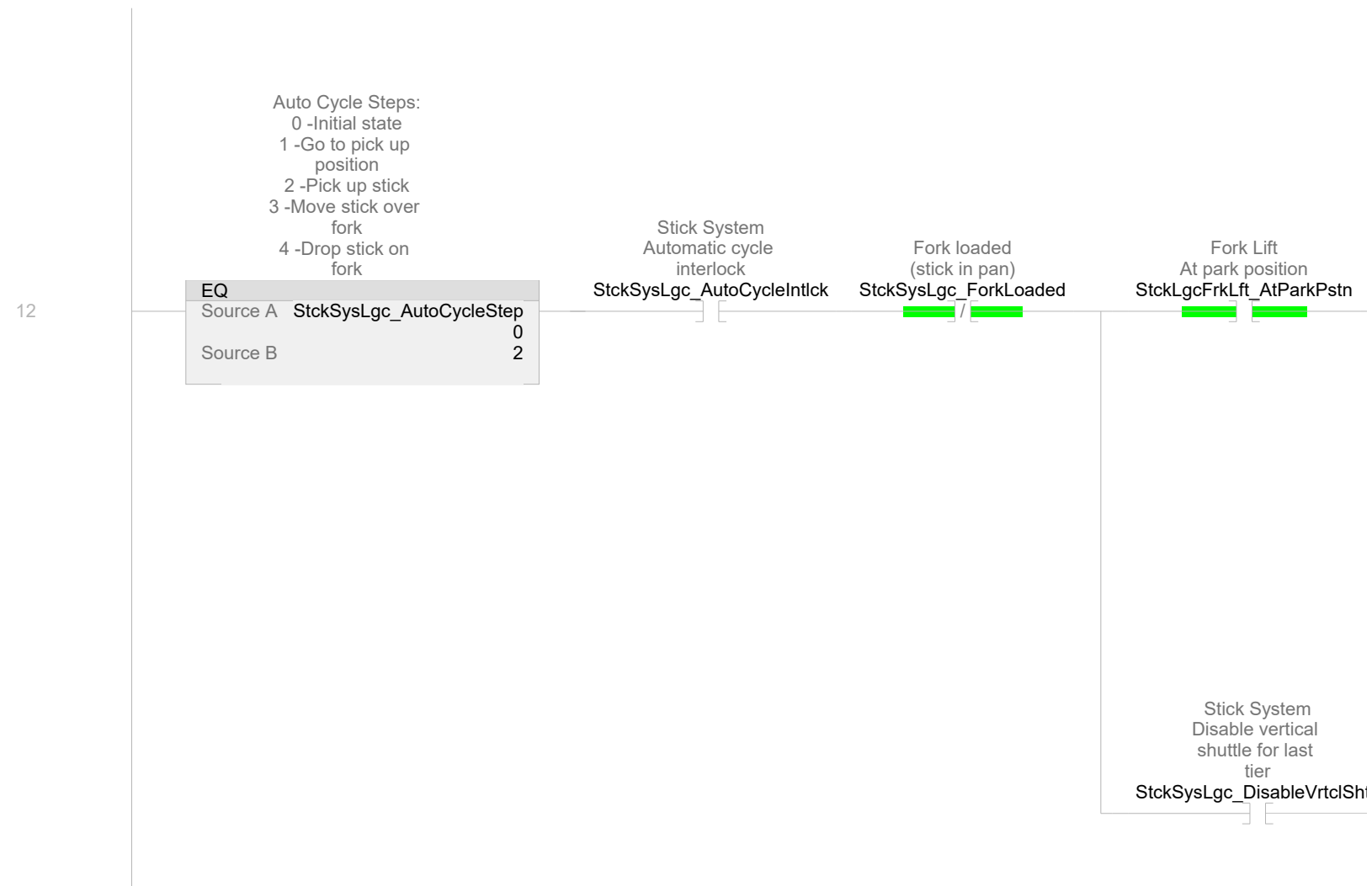
- Stick distribution chain moves to stick pick up position
- Horizontal shuttle moves to stick pick up position





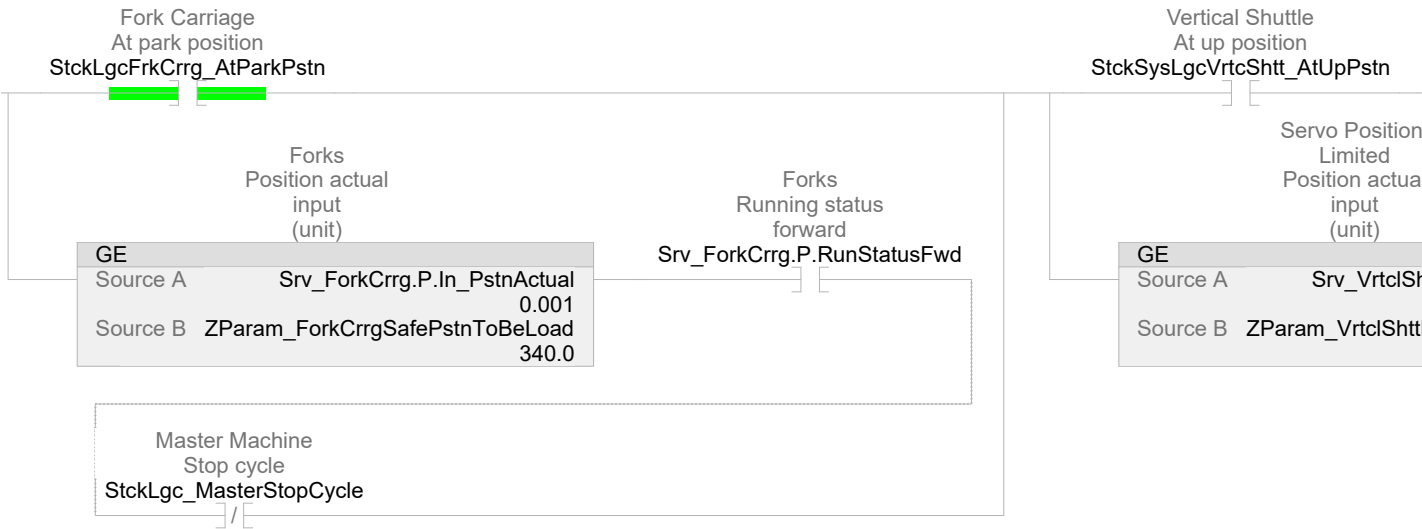


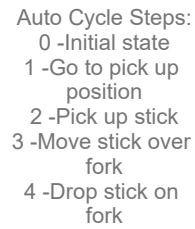




Auto Cycle STEP 3

- Horizontal shuttle moves toward the fork to bring stick over the pan
- Stick distribution chain moves to park position position, so the shuttle doesn't touch sticks on the chain





13

Auto Cycle STEP 4

- Vertical shuttle moves down to drop the sticks on fork's pan

- Auto Cycle Steps:
- 0 -Initial state
 - 1 -Go to pick up position
 - 2 -Pick up stick
 - 3 -Move stick over fork
 - 4 -Drop stick on fork

Stick System
Automatic cycle
interlock

EQ	StckSysLgc_AutoCycleStep	0
Source A		
Source B		3

StckSysLgc_AutoCycleIntlck

Fork Carriage
At park position
StckLgcFrkCrrg_AtParkPstn

Forks
Position actual
input
(unit)

GE	Srv_ForkCrrg.P.In_PstnActual	0.001
Source A		
Source B	ZParam_ForkCrrgSafePstnToDrop	350.0

Forks
Running status
forward
Srv_ForkCrrg.P.RunStatusFwd

Master Machine
Stop cycle
StckLgc_MasterStopCycle

Horizontal Shuttle
At park position
StckSysLgcHrznShtl_AtParkPstn

Servo Position
Limited
Position actual
input
(unit)

LE	Srv_HrznShtl.P.In_PstnActual	5.12825
Source A		
Source B	ZParam_HrznShtlSafePstnToDrop	0.25

Servo Position
Limited
Running status
reverse
Srv_HrznShtl.P.RunStatusRev

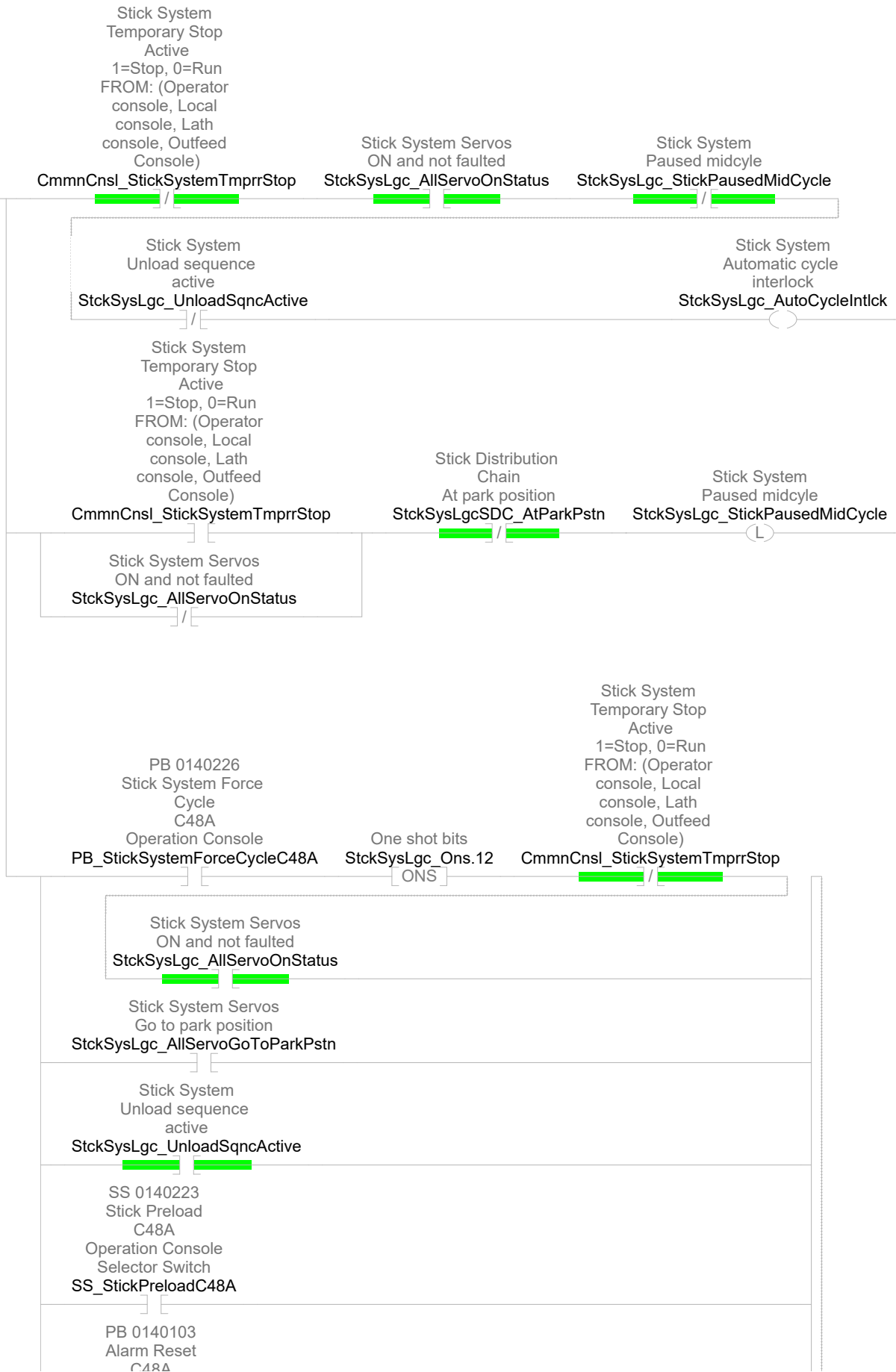
- Auto Cycle Steps:
- 0 -Initial state
 - 1 -Go to pick up position
 - 2 -Pick up stick
 - 3 -Move stick over fork
 - 4 -Drop stick on fork

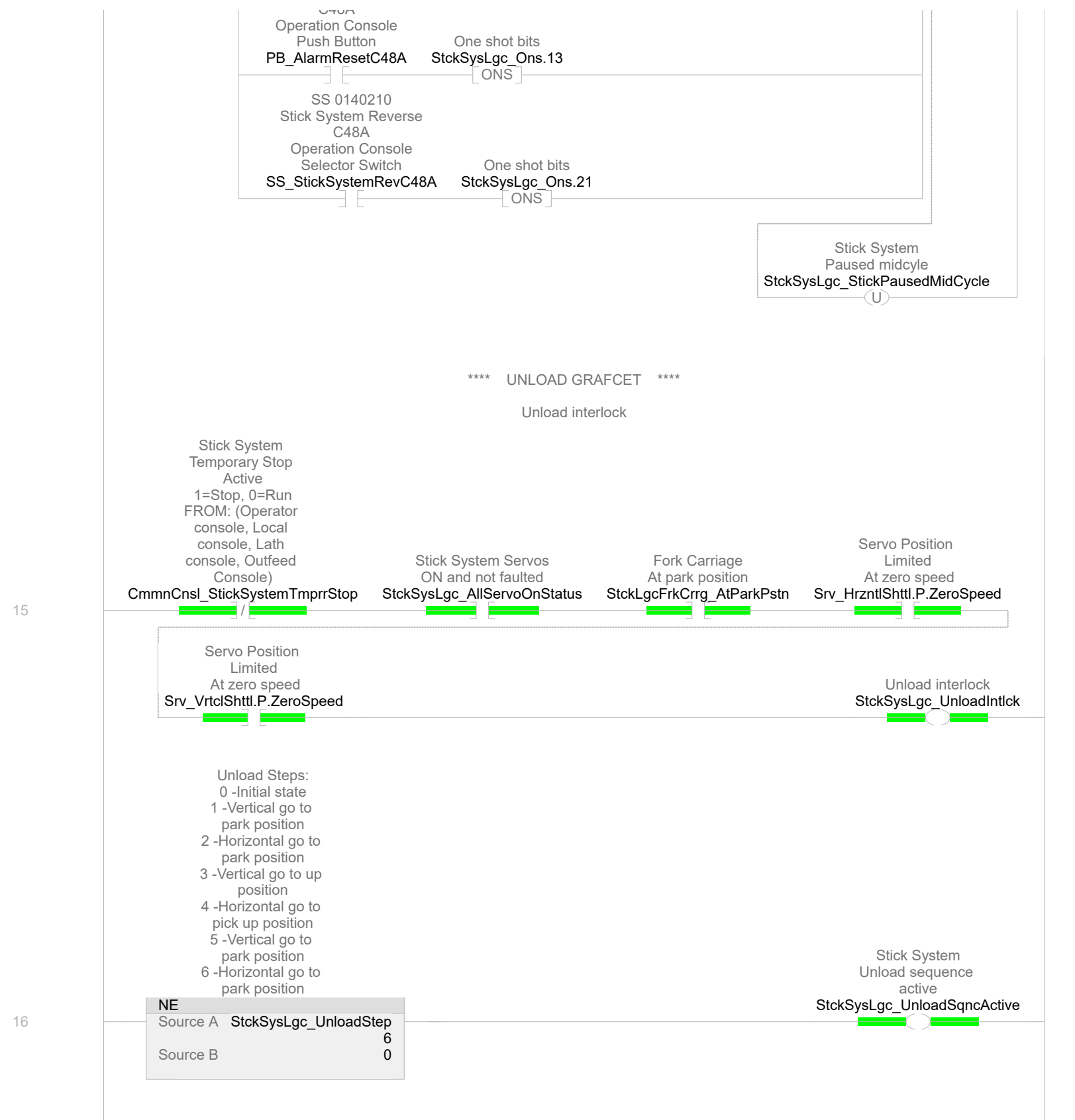
MOVE		4
Source		
Dest	StckSysLgc_AutoCycleStep	0

**** AUTO CYCLE GRAFCET ****

Auto cycle interlock

14





17

Unload STEP 0

Initialization

Processor Flags
First Scan Pulse
_PrcssrFlag.FirstScanPulse

Stick System Servos
Go to park position
StckSysLgc_AllServoGoToParkPstn

Unload Steps:
0 -Initial state
1 -Vertical go to
park position
2 -Horizontal go to
park position
3 -Vertical go to up
position
4 -Horizontal go to
pick up position
5 -Vertical go to
park position
6 -Horizontal go to
park position

EQ

Source A StckSysLgc_UnloadStep 6
Source B 6

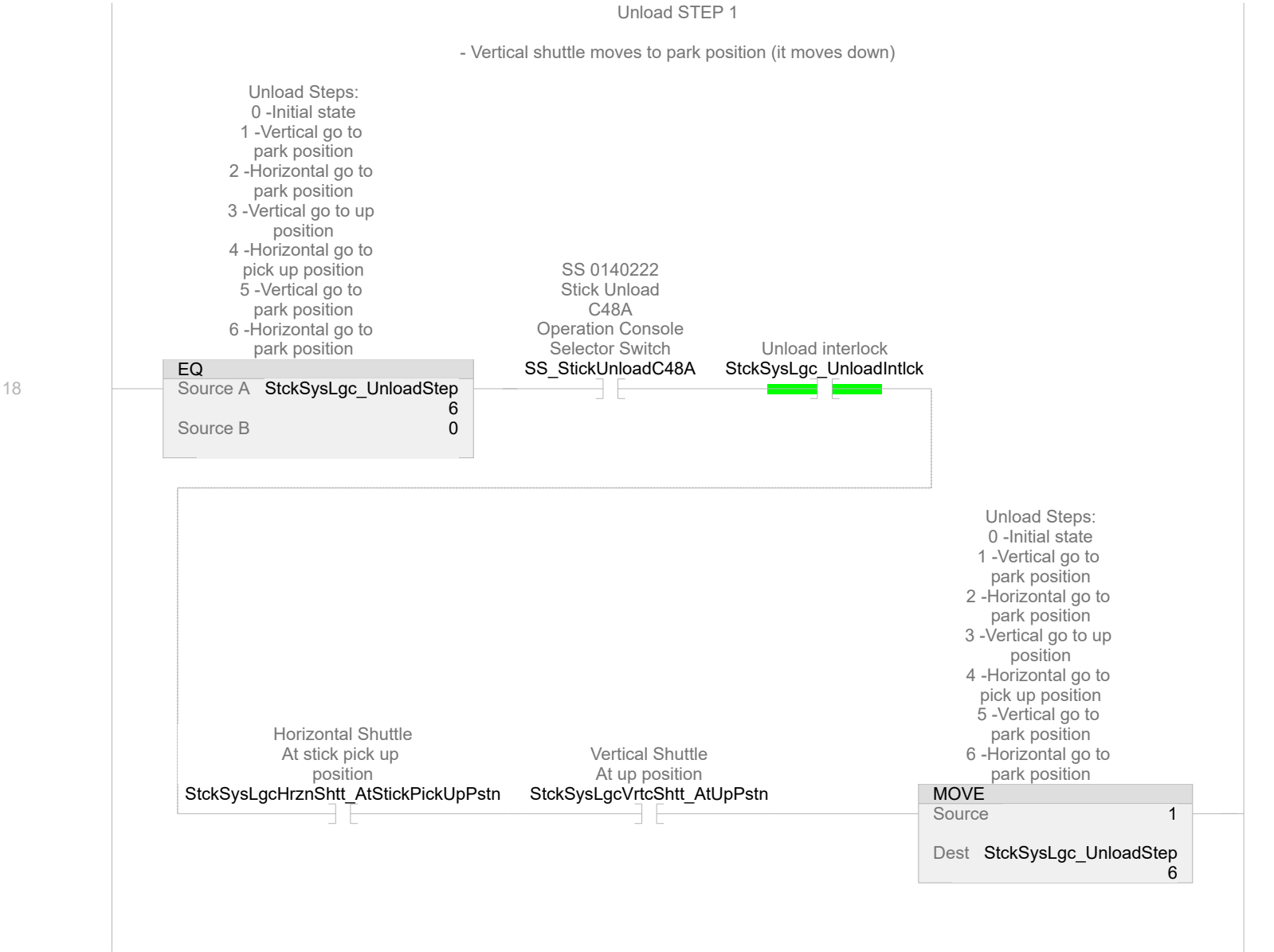
Horizontal Shuttle
At park position
StckSysLgcHrznShtt_AtParkPstn

Vertical Shuttle
At park position
StckSysLgcVrtcShtt_AtParkPstn

Unload Steps:
0 -Initial state
1 -Vertical go to
park position
2 -Horizontal go to
park position
3 -Vertical go to up
position
4 -Horizontal go to
pick up position
5 -Vertical go to
park position
6 -Horizontal go to
park position

MOVE

Source 0
Dest StckSysLgc_UnloadStep 6



Unload STEP 2

- Horizontal shuttle go to park position (Under the fork pan)

Unload Steps:
0 -Initial state
1 -Vertical go to
park position
2 -Horizontal go to
park position
3 -Vertical go to up
position
4 -Horizontal go to
pick up position
5 -Vertical go to
park position
6 -Horizontal go to
park position

SS 0140222
Stick Unload
C48A
Operation Console
Selector Switch
SS_StckUnloadC48A

Unload interlock
StckSysLgc_UnloadIntlck

EQ
Source A StckSysLgc_UnloadStep 6
Source B 0

Unload Steps:
0 -Initial state
1 -Vertical go to
park position
2 -Horizontal go to
park position
3 -Vertical go to up
position
4 -Horizontal go to
pick up position
5 -Vertical go to
park position
6 -Horizontal go to
park position

EQ
Source A StckSysLgc_UnloadStep 6
Source B 1

Unload Steps:
0 -Initial state
1 -Vertical go to
park position
2 -Horizontal go to
park position
3 -Vertical go to up
position
4 -Horizontal go to
pick up position
5 -Vertical go to
park position
6 -Horizontal go to
park position

Horizontal Shuttle
At stick pick up
position
StckSysLgcHrznShtt_AtStickPickUpPstn

Vertical Shuttle
At park position
StckSysLgcVrtcShtt_AtParkPstn

MOVE
Source 2
Dest StckSysLgc_UnloadStep 6

Unload STEP 3

- Vertical shuttle moves up to pick stick from fork pan

Unload Steps:
0 -Initial state
1 -Vertical go to
park position
2 -Horizontal go to
park position
3 -Vertical go to up
position
4 -Horizontal go to
pick up position
5 -Vertical go to
park position
6 -Horizontal go to
park position

SS 0140222
Stick Unload
C48A
Operation Console
Selector Switch
SS_StickUnloadC48A

Unload interlock
StckSysLgc_UnloadIntlck

EQ
Source A StckSysLgc_UnloadStep 6
Source B 0

Unload Steps:
0 -Initial state
1 -Vertical go to
park position
2 -Horizontal go to
park position
3 -Vertical go to up
position
4 -Horizontal go to
pick up position
5 -Vertical go to
park position
6 -Horizontal go to
park position

EQ
Source A StckSysLgc_UnloadStep 6
Source B 2

Unload Steps:
0 -Initial state
1 -Vertical go to
park position
2 -Horizontal go to
park position
3 -Vertical go to up
position
4 -Horizontal go to
pick up position
5 -Vertical go to
park position
6 -Horizontal go to
park position

Horizontal Shuttle
At park position
StckSysLgcHrznShtt_AtParkPstn

Vertical Shuttle
At park position
StckSysLgcVrtcShtt_AtParkPstn

MOVE
Source 3
Dest StckSysLgc_UnloadStep 6

Unload STEP 4

- Horizontal shuttle moves away from fork (moves to auto cycle "stick pick up position")

Unload Steps:

- 0 -Initial state
- 1 -Vertical go to park position
- 2 -Horizontal go to park position
- 3 -Vertical go to up position
- 4 -Horizontal go to pick up position
- 5 -Vertical go to park position
- 6 -Horizontal go to park position

SS 0140222
Stick Unload
C48A
Operation Console
Selector Switch
SS_StickUnloadC48A

Unload interlock
StckSysLgc_UnloadIntick

EQ	
Source A	StckSysLgc_UnloadStep
	6
Source B	0

Unload Steps:

- 0 -Initial state
- 1 -Vertical go to park position
- 2 -Horizontal go to park position
- 3 -Vertical go to up position
- 4 -Horizontal go to pick up position
- 5 -Vertical go to park position
- 6 -Horizontal go to park position

EQ	
Source A	StckSysLgc_UnloadStep
	6
Source B	3

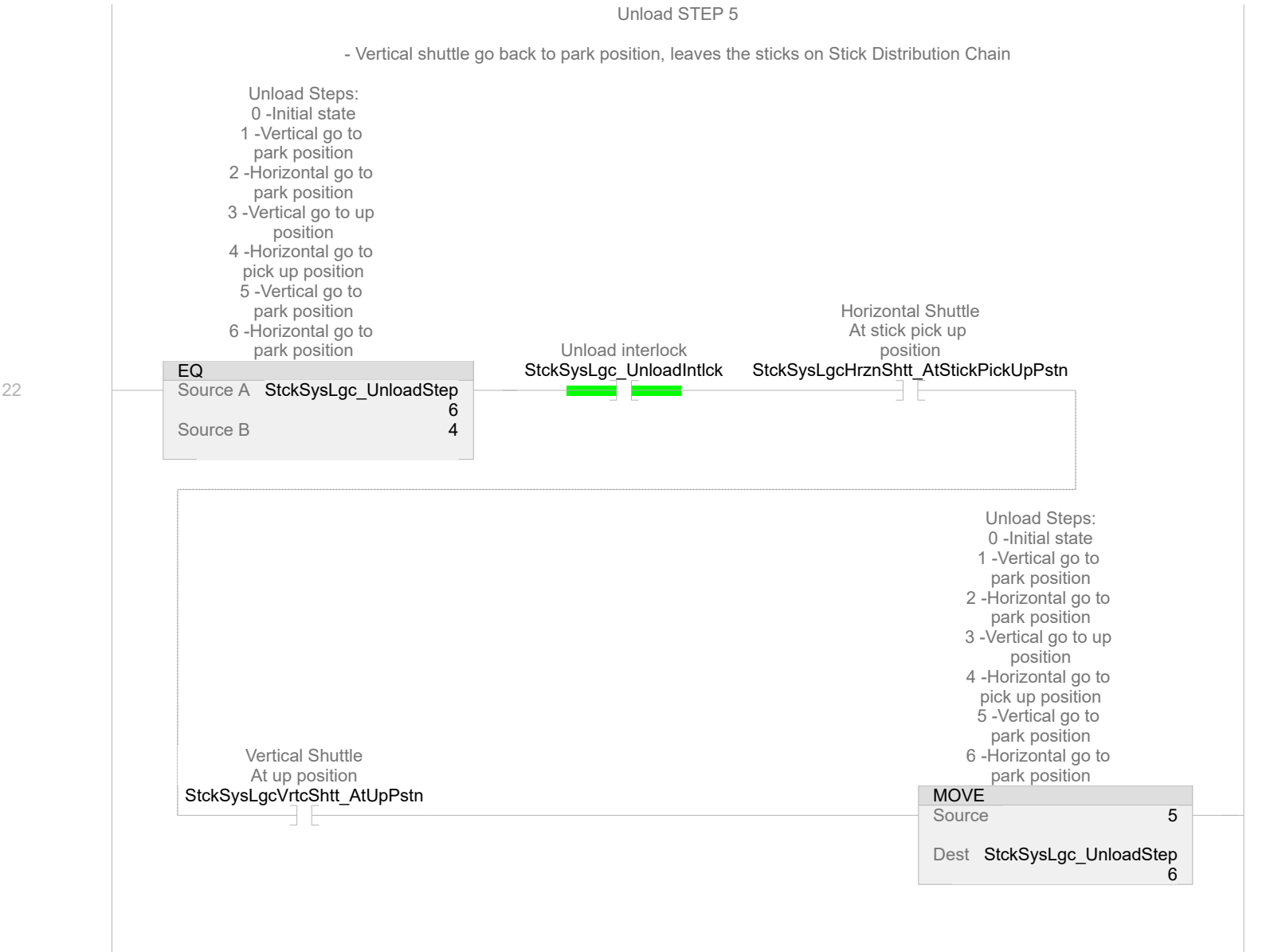
Unload Steps:

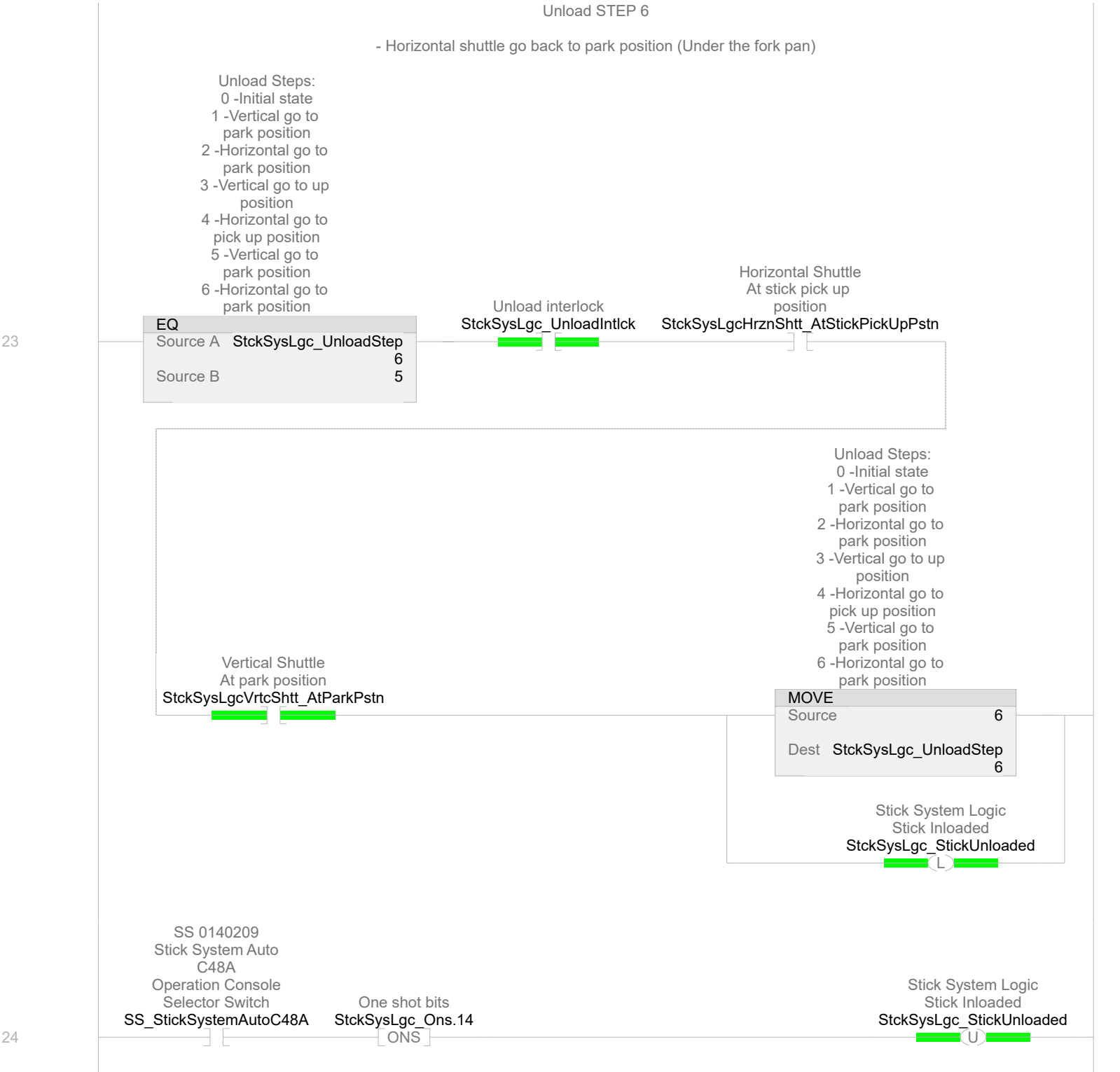
- 0 -Initial state
- 1 -Vertical go to park position
- 2 -Horizontal go to park position
- 3 -Vertical go to up position
- 4 -Horizontal go to pick up position
- 5 -Vertical go to park position
- 6 -Horizontal go to park position

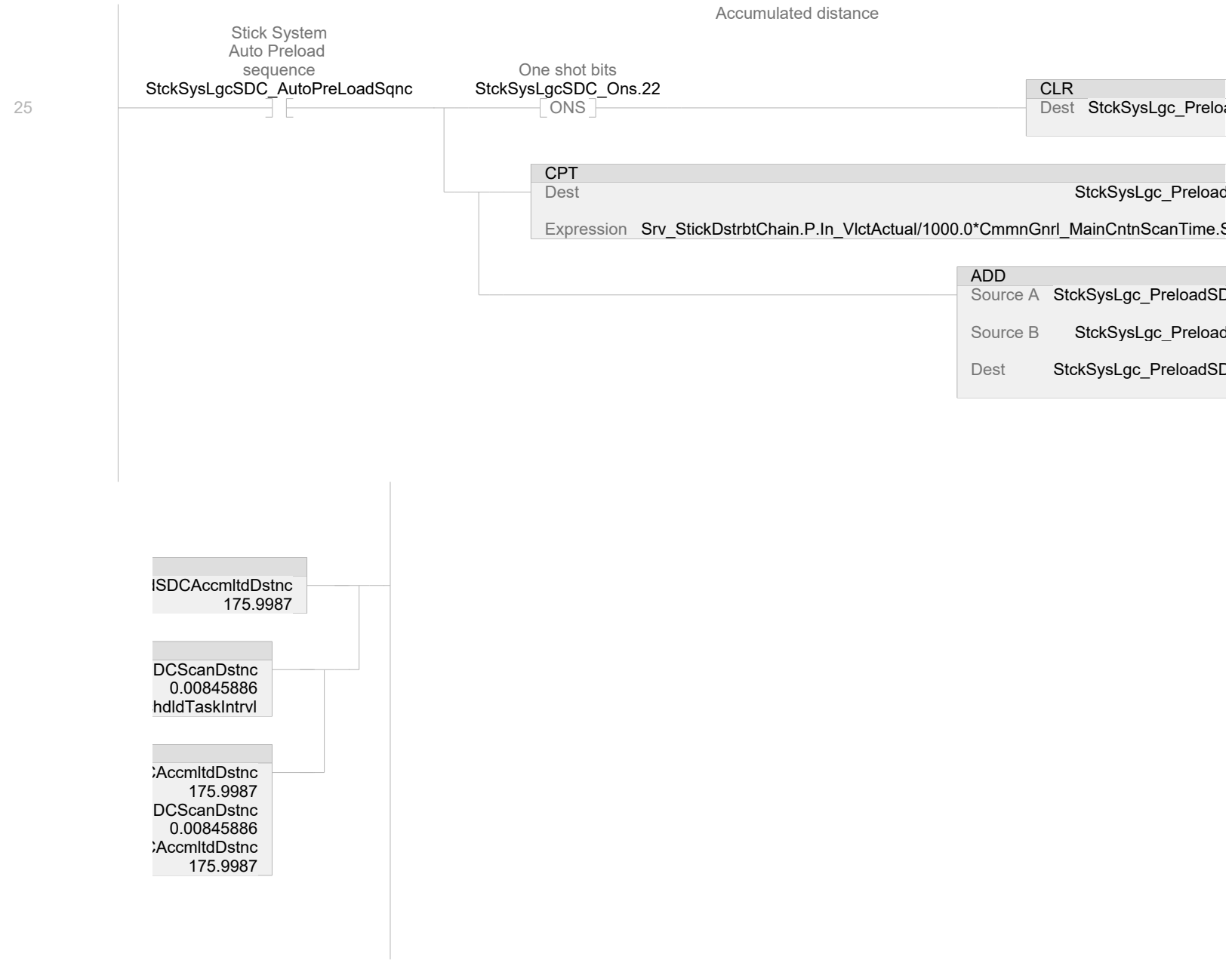
Horizontal Shuttle
At park position
StckSysLgcHrznShtt_AtParkPstn

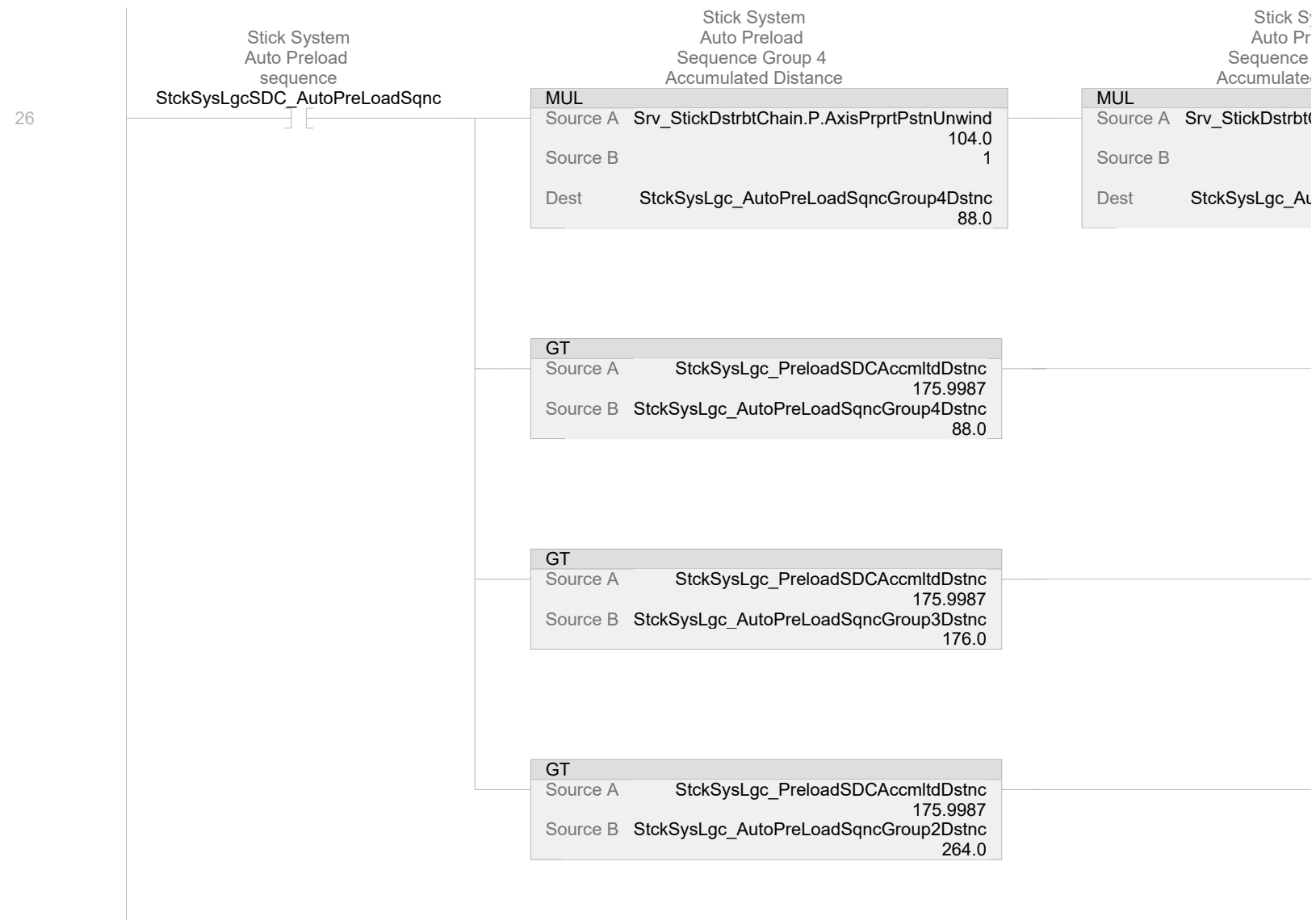
Vertical Shuttle
At up position
StckSysLgcVrtcShtt_AtUpPstn

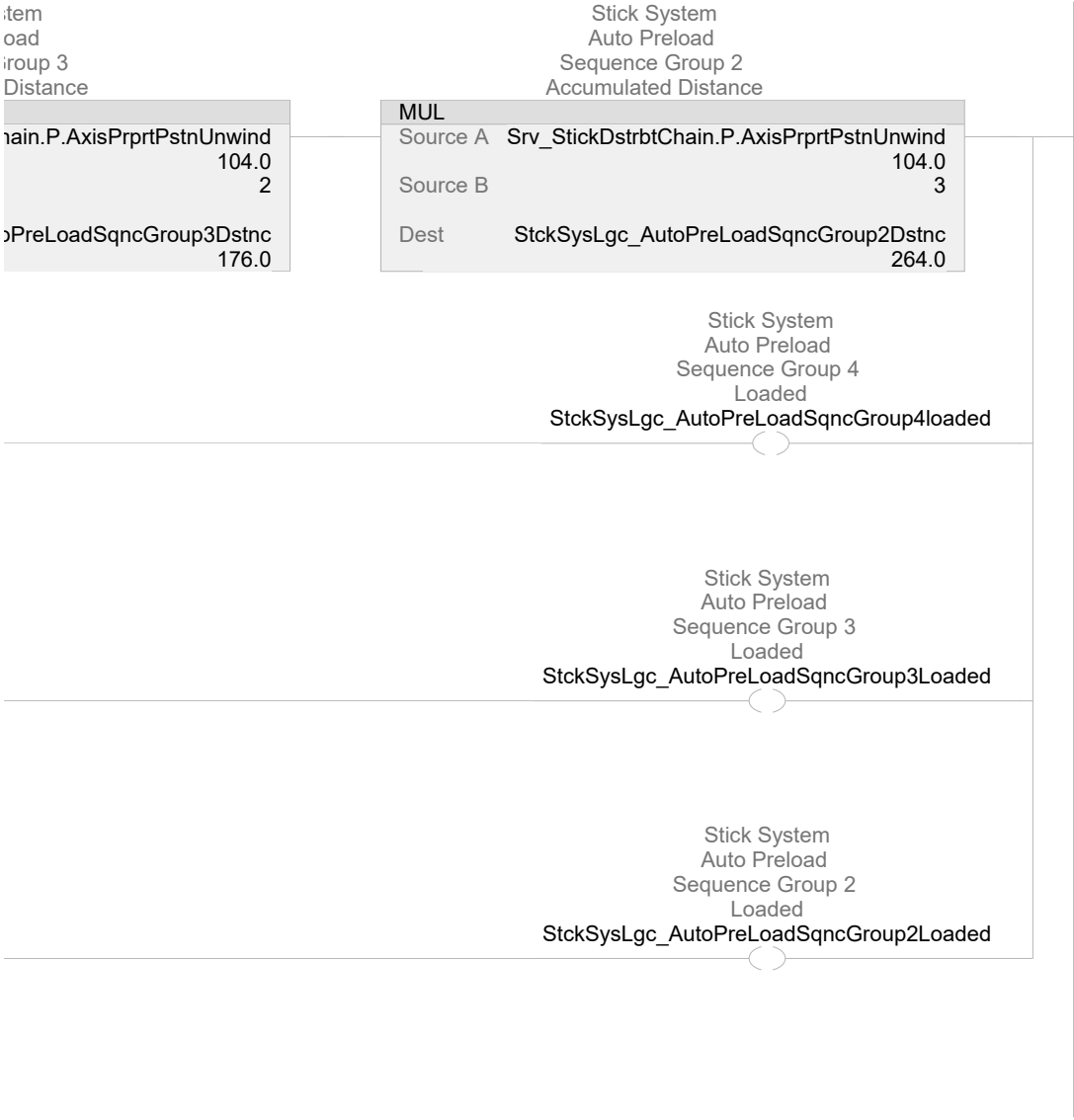
MOVE	
Source	4
Dest	StckSysLgc_UnloadStep
	6











(End)