==========
RESET ROUTINE
==========
When the routine is started, reset the output tags and the internal state machine.

0

MRP_Motor_0_Active — Start_AOI_OneShot [ONS] — EN (L) — DN (U) — ER (U) — MOV
Source STATE_SEND_POSITION 1
Dest CURRENT_STATE 0

==========
REDEFINE POSITION
==========
Set all parameters to redefine the position, then increment the move number to change the position. The move number value should be stored locally, so it can be used to detect if the move is interrupted later in the routine.

1

MRP_Motor_0_Active — EQU
Source A CURRENT_STATE 0
Source B STATE_SEND_POSITION 1

Type — CPT
Dest Motor0.MoveParam1 0
Expression Position-Motor0.PositionMeasured

Type — MOV
Source Position 0
Dest Motor0.MoveParam1 0

MOV
Source 8
Dest Motor0.MoveType 0

ADD
Source A Motor0.MoveNumber 0
Source B 1
Dest Motor0.MoveNumber 0

MOV
Source Motor0.MoveNumber 0
Dest Local_Move_Number 0

MOV
Source STATE_VERIFY_POSITION_RECIEVED 2
Dest CURRENT_STATE 0

==========
VERIFY MOVE RECIEVED
==========

Monitor the move number ack and wait for it to equal the move number used to start the move. This will indicate the motor has received the move command. Once it has been verified that the motor has received the move, check the move type ack to confirm the move was accepted. If the motor is unable to start the move, it will return a move type error (MoveTypeAck greater than 99). If a move type error has occurred, set the error code equal to the move type error.

2

```
EQU
  Source A   CURRENT_STATE
             0
  Source B   STATE_VERIFY_POSITION_RECIEVED
             2

EQU
  Source A   Motor0.MoveNumberAck
             0
  Source B   Local_Move_Number
             0

LES
  Source A   Motor0.MoveTypeAck
             0
  Source B   99
  DN  (L)

MOV
  Source     STATE_COMPLETE
             3
  Dest       CURRENT_STATE
             0

GRT
  Source A   Motor0.MoveTypeAck
             0
  Source B   99

MOV
  Source     STATE_ERROR
             21
  Dest       CURRENT_STATE
             0

MOV
  Source     Motor0.MoveTypeAck
             0
  Dest       ErrCode
             0
  ER  (L)
```

==========
CHECK FOR INTERRUPTIONS
==========

Monitor conditions that would indicate the move has been interrupted. If the move number set by this routine is modified or the move number ack is changed after the move has been started, transition to the move interrupted state and set the ER output to indicate that this move has stopped executing.

3

```
EQU
  Source A   CURRENT_STATE
             0
  Source B   STATE_VERIFY_POSITION_RECIEVED
             2

NEQ
  Source A   Motor0.MoveNumber
             0
  Source B   Local_Move_Number
             0
  ER  (L)
```

Unlatch the EN status if DN or ER are asserted.

4

```
MRP_Motor_0_Active  ]/[
DN  ]  [
ER  ]  [
EN  (U)
```

(End)