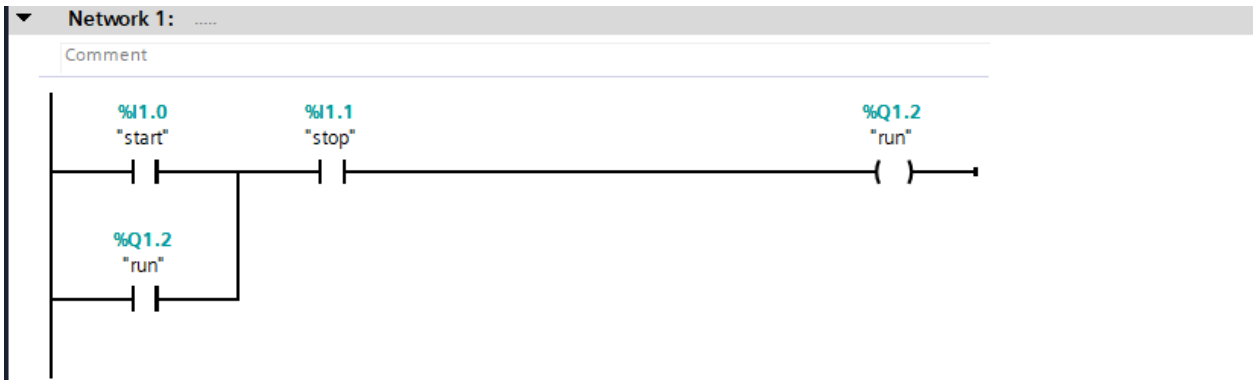
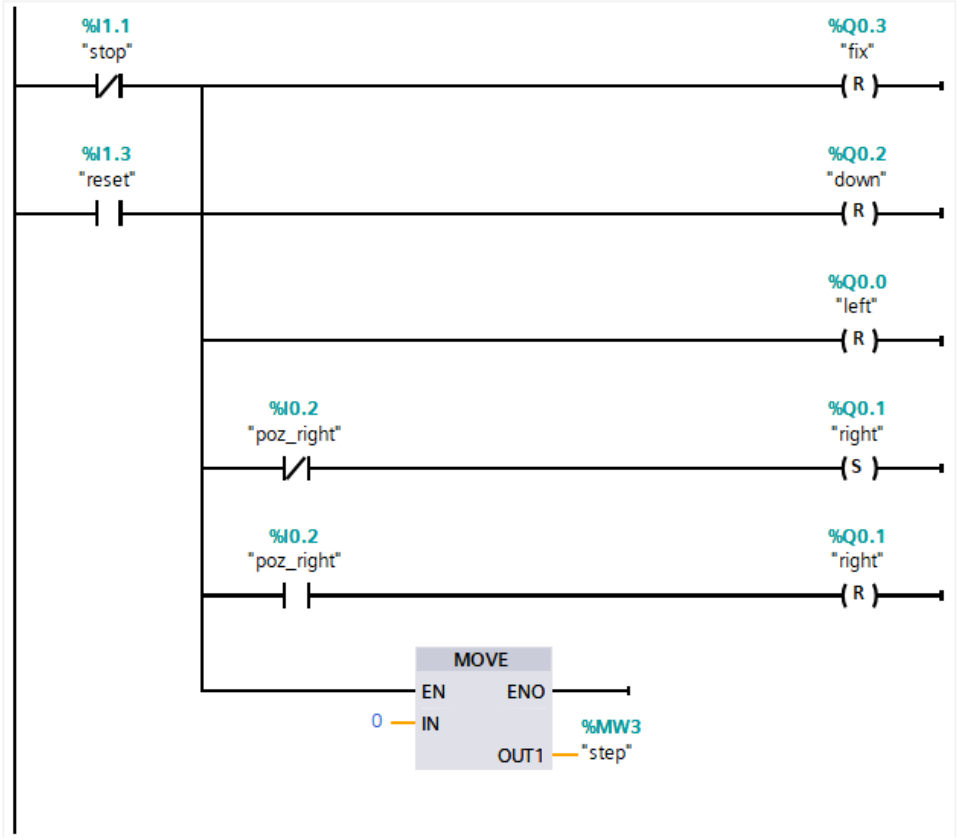


Q1.2 = (I1.0 OR Q1.2) AND NOT I1.1

Explanation:

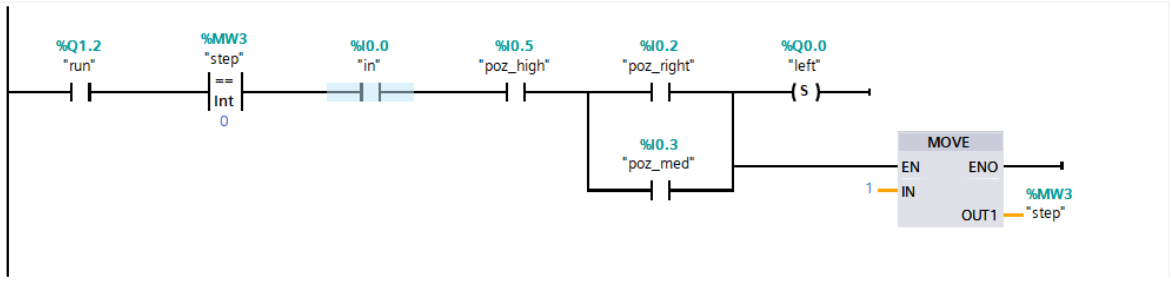
- **I1.0:** This represents the “start” input. It’s a normally open contact.
- **Q1.2:** This is the “run” output, and it’s also used as a seal-in contact.
- **I1.1:** This is the “stop” input, represented by a normally closed contact.
- **OR:** The inputs are arranged in a way where either I1.0 or Q1.2 has to be TRUE for the top of the line to activate.
- **AND:** The output of the OR has to be TRUE AND I1.1 has to be FALSE (normally closed contact).



Outputs:

- **Q0.3 (fix):** Q0.3 = NOT I1.1 OR I1.3
- **Q0.2 (down):** Q0.2 = NOT I1.1 OR I1.3
- **Q0.0 (left):** Q0.0 = NOT I1.1 OR I1.3
- **Q0.1 (right) (Set):** Q0.1_SET = NOT I0.2
- **Q0.1 (right) (Reset):** Q0.1_RESET = I0.2
- **MW3 (step):** (Move instruction which is activated with I0.2). I0.2 acts as an enable so no Boolean equation is given. The moved value is always 0.

Explanation:

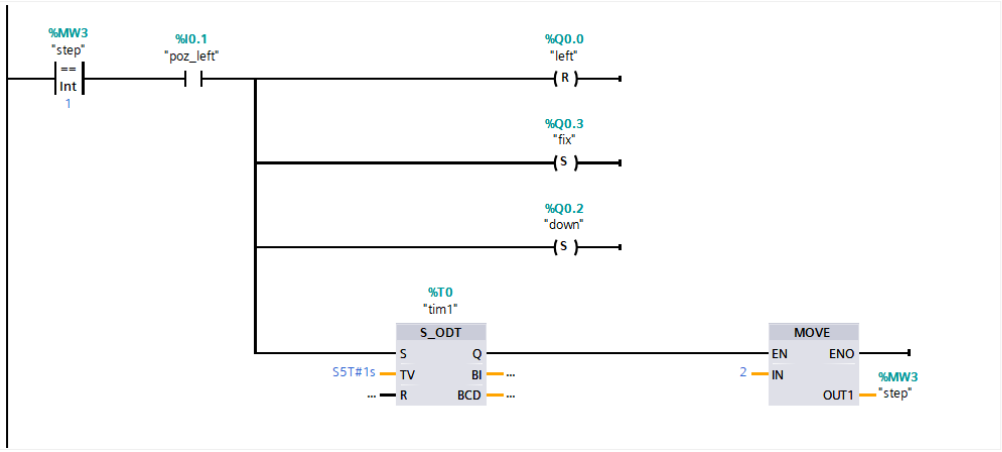
- **I1.1:** This is the "stop" input, represented by a normally closed contact.
- **I1.3:** This is the "reset" input, represented by a normally open contact.
- **I0.2:** This is the "poz_right" input, represented by both a normally closed and a normally open contact.
- 

Outputs:

- **Q0.0 (left) (Set):** Q0.0_SET = Q1.2 AND MW3 == 0 AND NOT I0.0 AND I0.5 AND (I0.2 OR I0.3)
- **MW3 (step):** I0.3

Explanation:

- **Q1.2:** "run" input, normally open contact.
- **MW3:** Memory word for "step".
- **I0.0:** Input "in" which is normally closed
- **I0.5:** Input "poz_high", normally open.
- **I0.2:** Input "poz_right", normally open.
- **I0.3:** Input "poz_med", normally open.
- **==:** Comparison operator that checks if "MW3" is equal to "0".

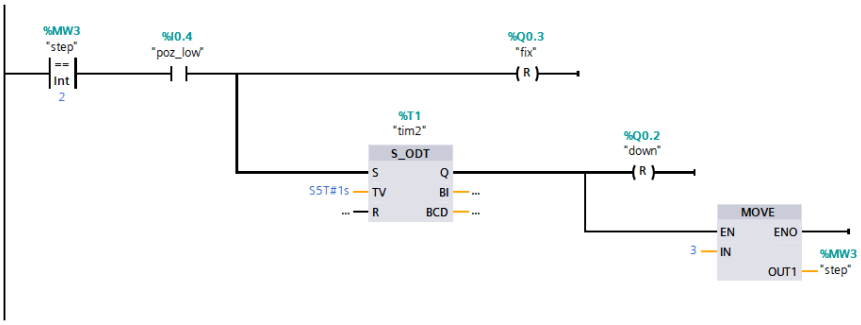


Outputs:

- **Q0.0 (left) (Reset):** Q0.0_RESET = (MW3 == 1) AND I0.1
- **Q0.3 (fix) (Set):** Q0.3_SET = (MW3 == 1) AND I0.1
- **Q0.2 (down) (Set):** Q0.2_SET = (MW3 == 1) AND I0.1
- **MW3 (step):** MW3 = Timer_Q

Explanation:

- **MW3:** Memory word for “step”.
- **I0.1:** Input “poz_left”, normally open contact.
- **==:** Comparison operator that checks if “MW3” is equal to “1”.
- **T0:** Timer block called “tim1”

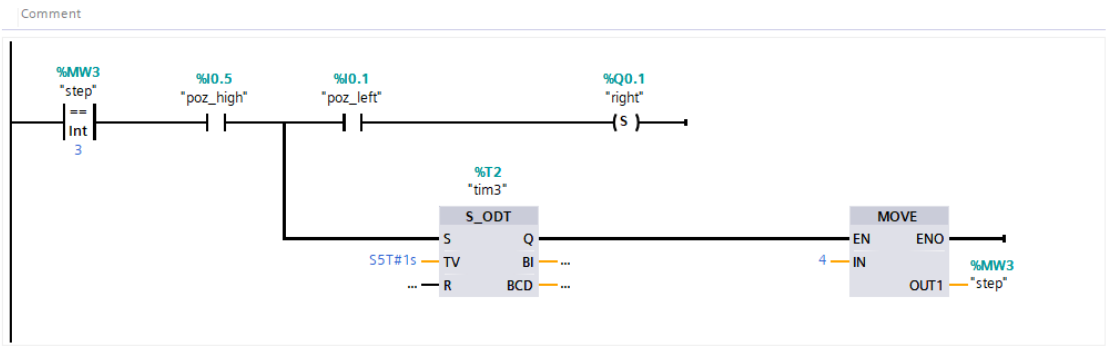


Outputs:

- **Q0.3 (fix) (Reset):** Q0.3_RESET = (MW3 == 2) AND I0.4
- **Q0.2 (down) (Reset):** Q0.2_RESET = Timer_Q
- **MW3 (step):** MW3 = Timer_Q

Explanation:

- **MW3:** Memory word for “step”.
- **I0.4:** Input “poz_low”, normally open contact.
- **==:** Comparison operator that checks if “MW3” is equal to “2”.
- **T1:** Timer block called “tim2”

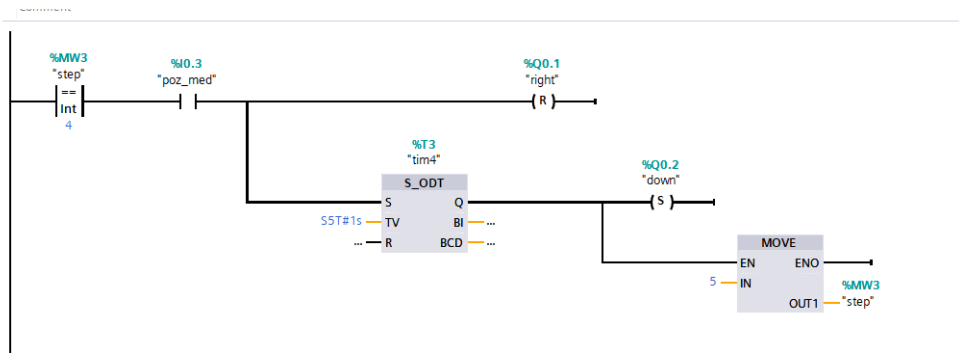


Outputs:

- **Q0.1 (right) (Set):** Q0.1_SET = (MW3 == 3) AND I0.5 AND I0.1
- **MW3 (step):** MW3 = Timer_Q

Explanation:

- **MW3:** Memory word for “step”.
- **I0.5:** Input “poz_high”, normally open contact.
- **I0.1:** Input “poz_left”, normally open contact.
- **==:** Comparison operator that checks if “MW3” is equal to “3”.
- **T2:** Timer block called “tim3”

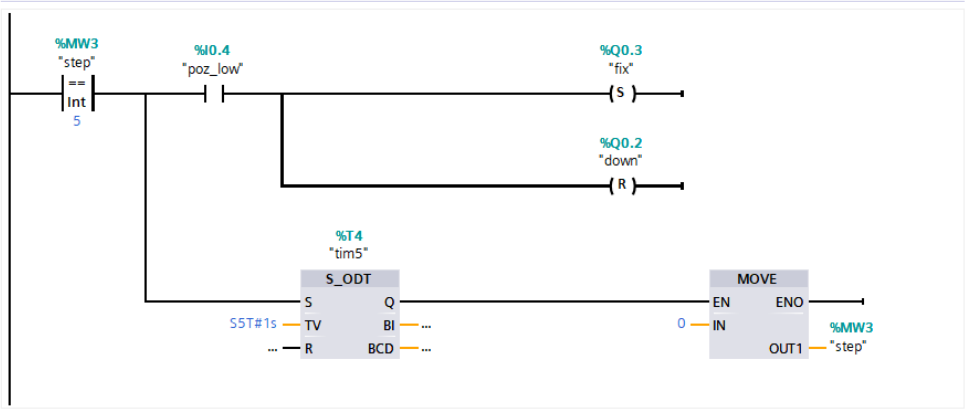


Outputs:

- **Q0.1 (right) (Reset):** Q0.1_RESET = (MW3 == 4) AND I0.3
- **Q0.2 (down) (Set):** Q0.2_SET = Timer_Q
- **MW3 (step):** MW3 = Timer_Q

Explanation:

- **MW3:** Memory word for “step”.
- **I0.3:** Input “poz_med”, normally open contact.
- **==:** Comparison operator that checks if “MW3” is equal to “4”.
- **T3:** Timer block called “tim4”



Outputs:

- **Q0.3 (fix) (Set):** Q0.3_SET = (MW3 == 5) AND I0.4
- **Q0.2 (down) (Reset):** Q0.2_RESET = Timer_Q
- **MW3 (step):** MW3 = Timer_Q

Explanation:

- **MW3:** Memory word for “step”.
- **I0.4:** Input “poz_low”, normally open contact.
- **==:** Comparison operator that checks if “MW3” is equal to “5”.
- **T4:** Timer block called “tim5”