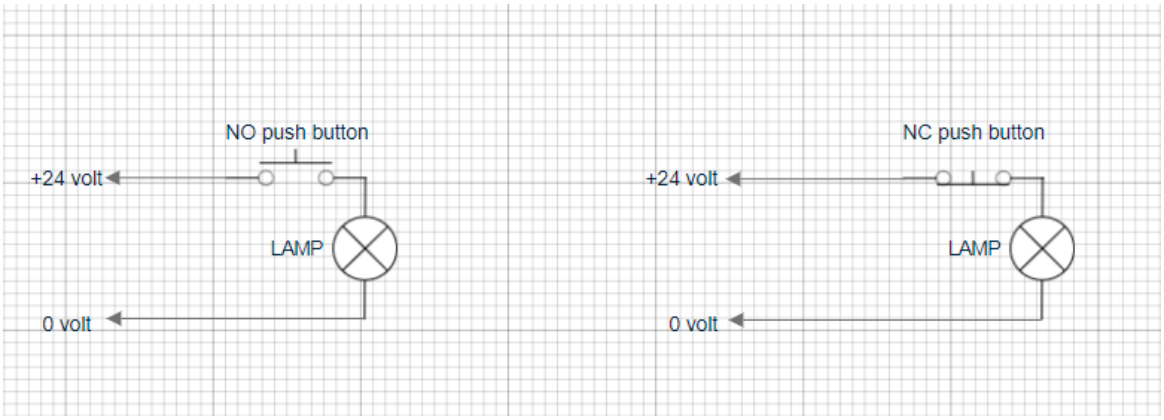
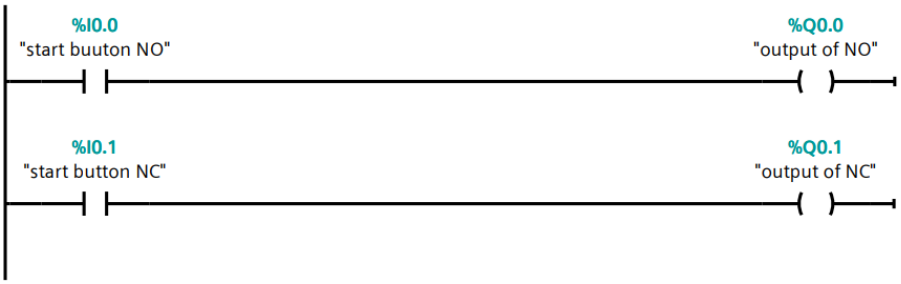
NETWORK 1 – turn on & turn off LED with NO & NC push buttons

ELECTRICAL DIAGRAM

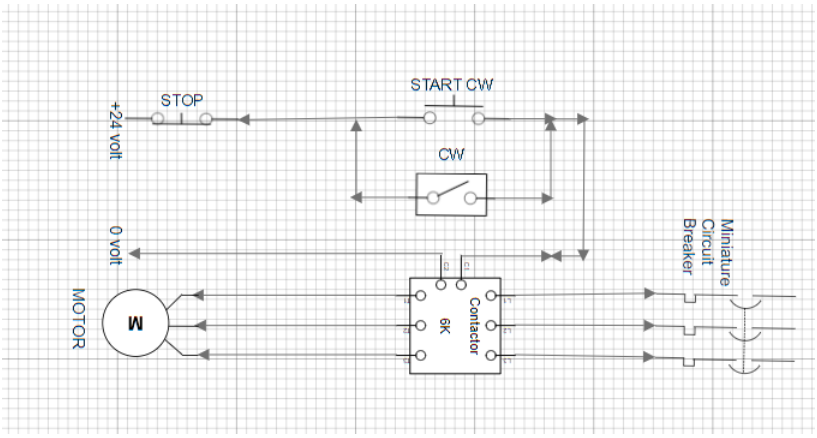


CONTROL DIAGRAM

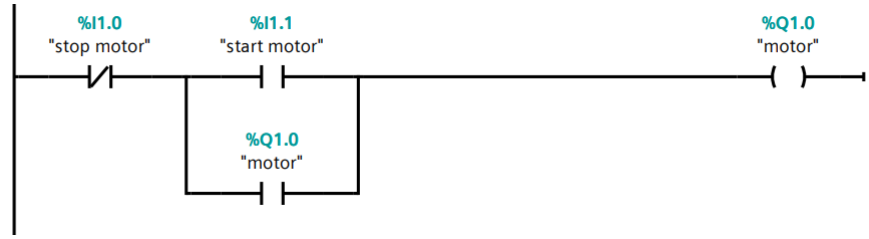


NETWORK 2 – turn on & turn off motor with NO push buttons

ELECTRICAL DIAGRAM

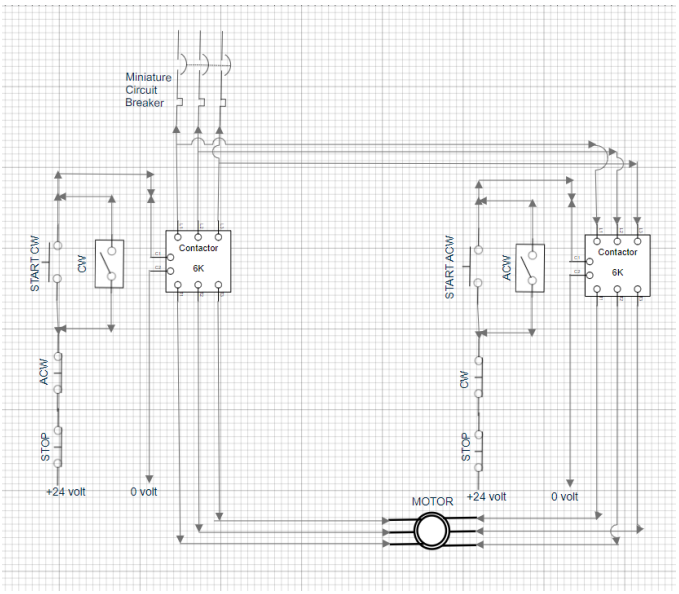


CONTROL DIAGRAM

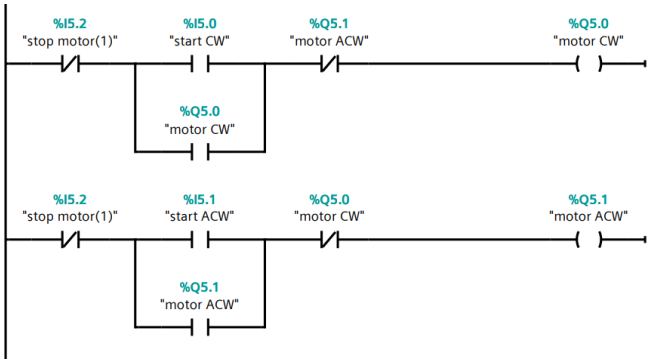


NETWORK 3 – write ladder logic to implement interlock mechanism of motor

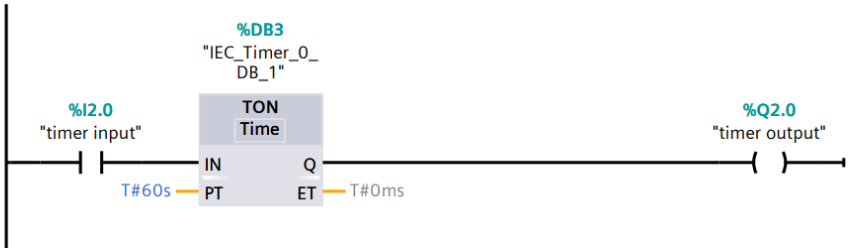
ELECTRICAL DIAGRAM



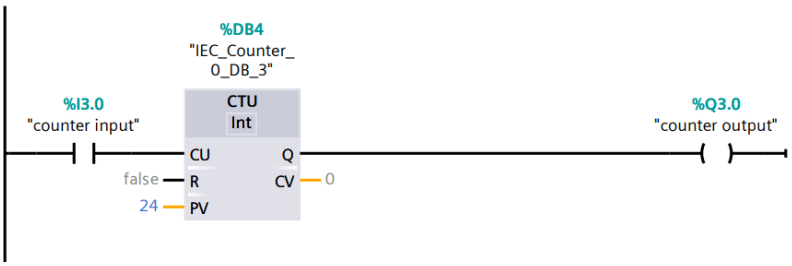
CONTROL DIAGRAM



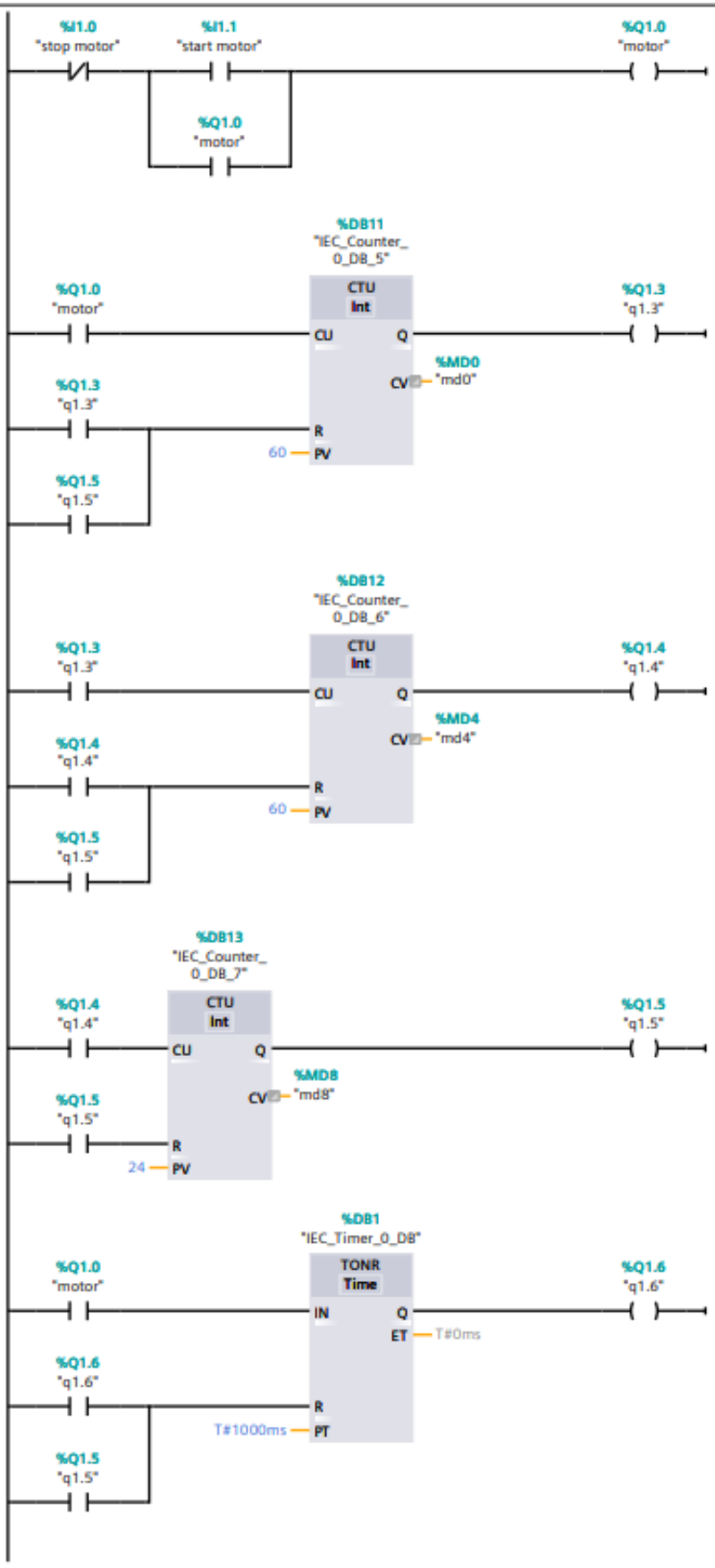
NETWORK 4 – study timer circuit. Output should go high 60s after receiving input



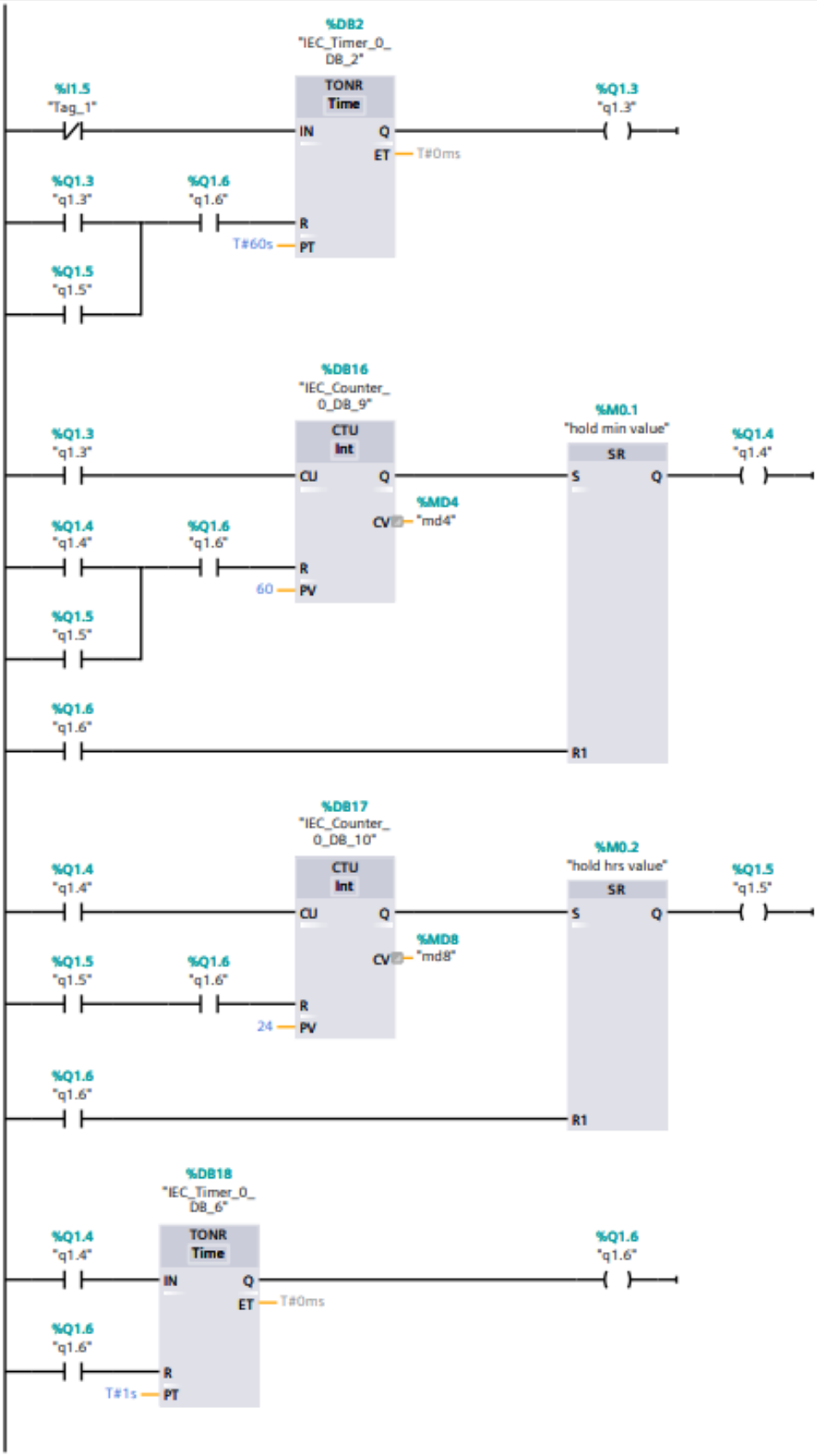
NETWORK 5 – study counter circuit. Output should go high after counting 24 objects



NETWORK 6 – caluculate the total time for which motor was turned on

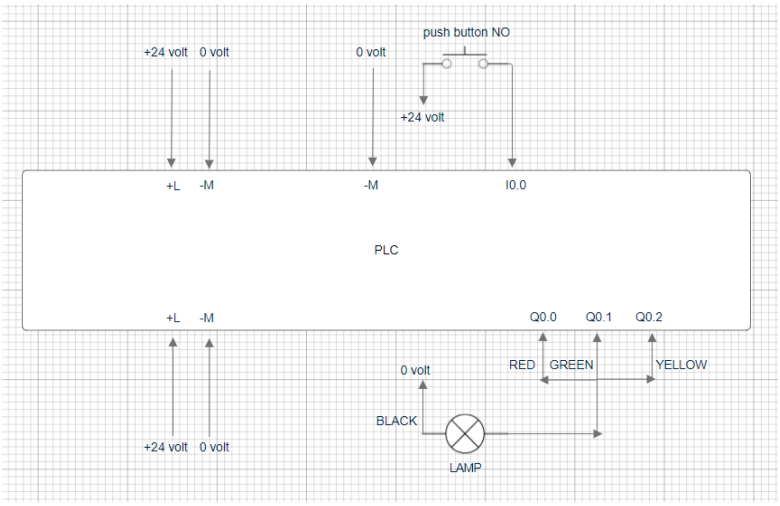


NETWORK 7 – make free running clock that displays hrs and mins. Should Reset auto every 24 hrs

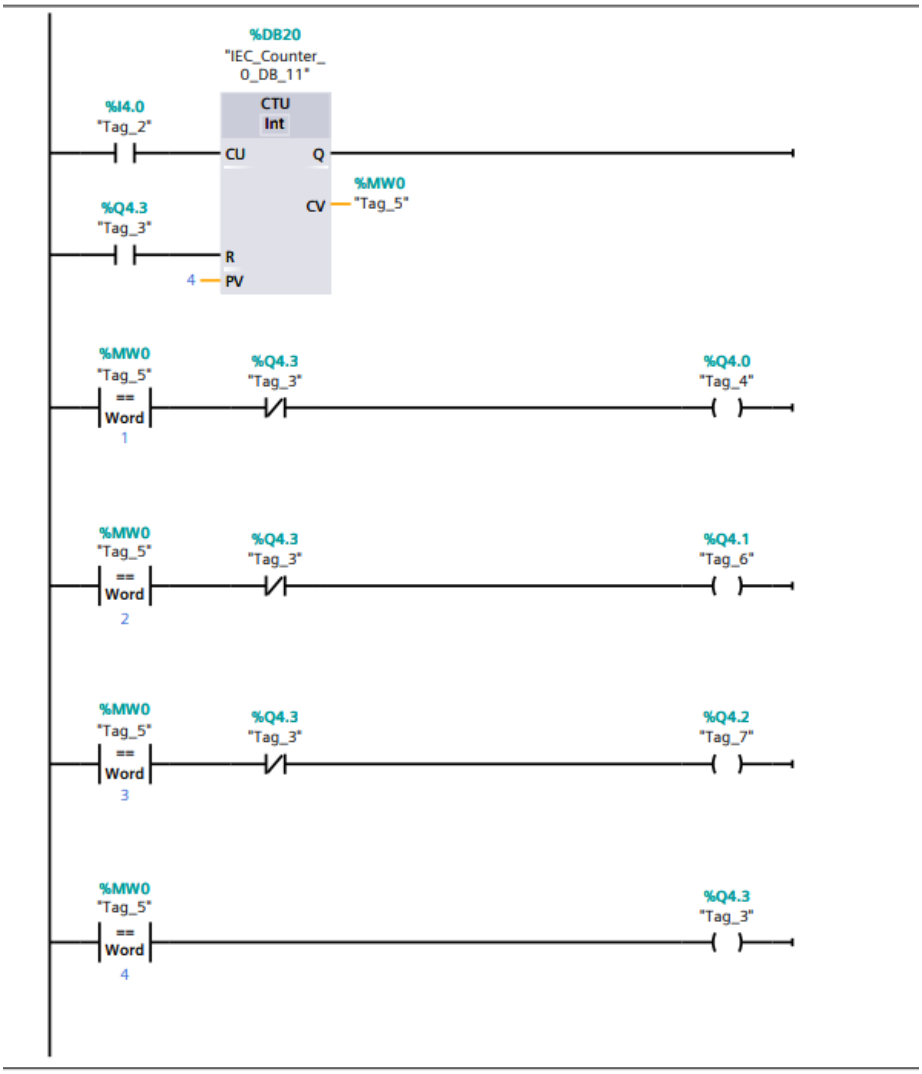


NETWORK 8 – interface tower lamp & display following pattern R – Y – G using push button.

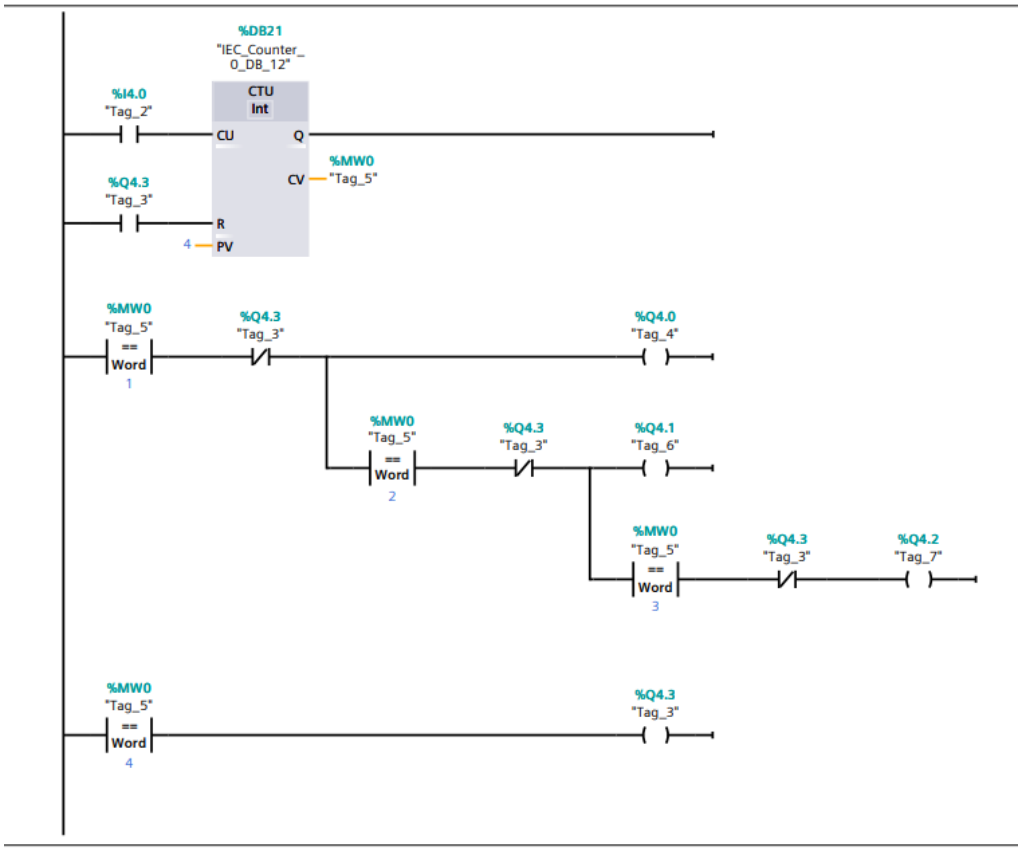
ELECTRICAL DIAGRAM



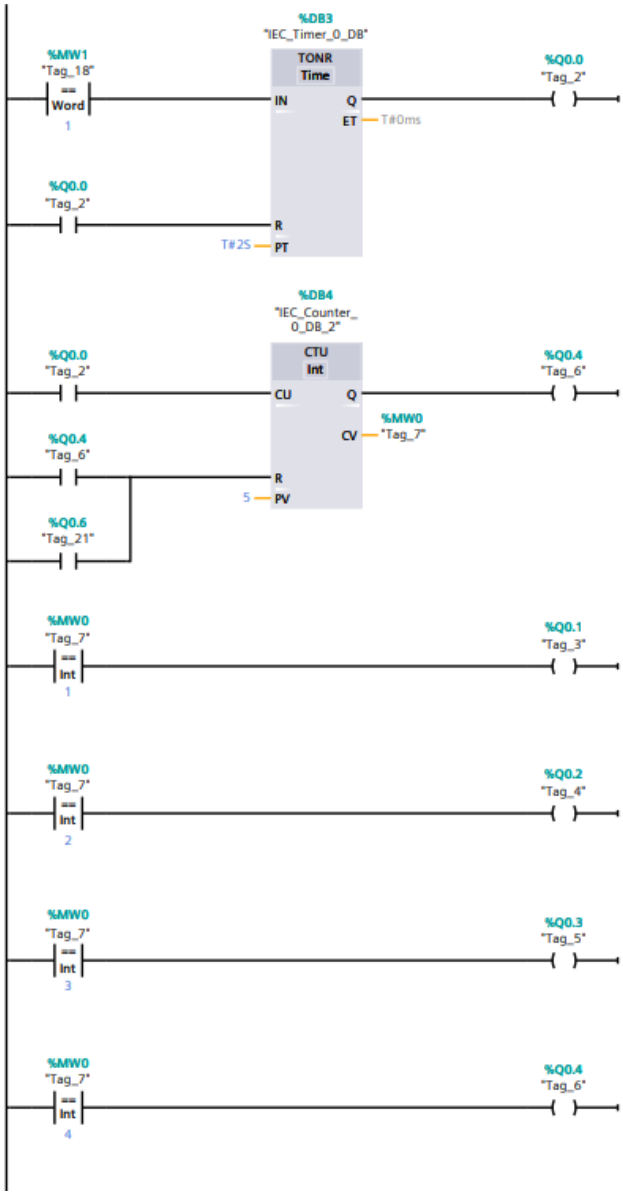
CONTROL DIAGRAM

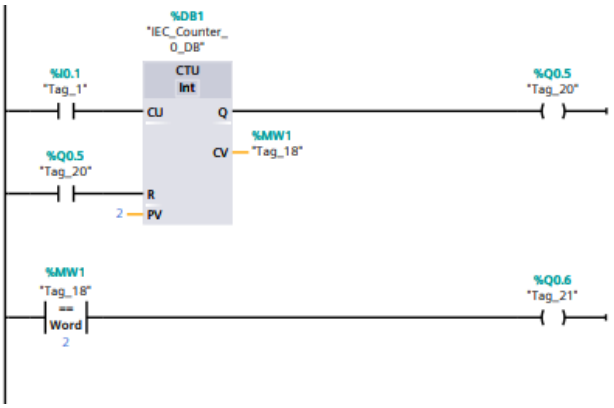


NETWORK 9 – interface tower lamp and display following pattern R – RY – RYG using push button.

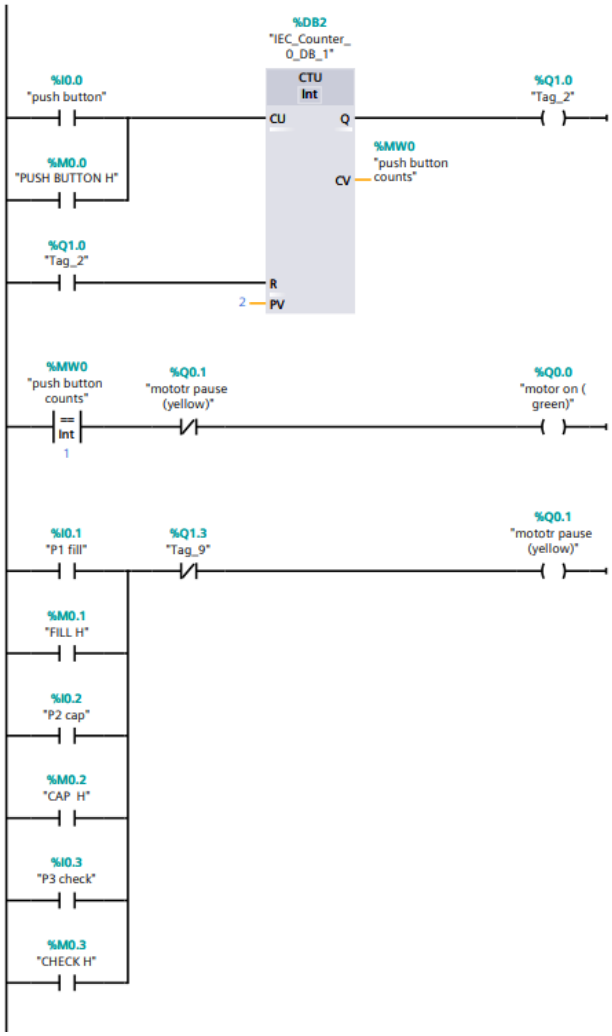


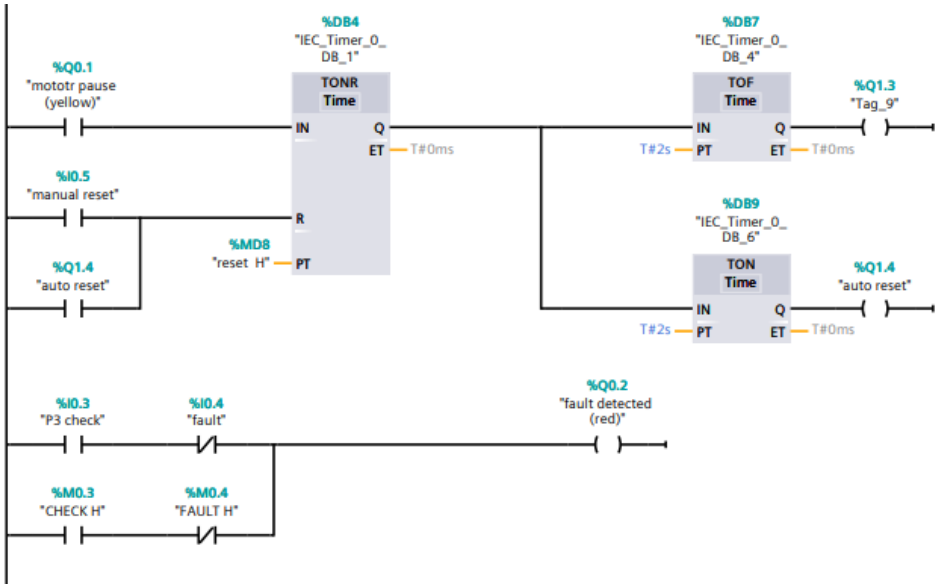
NETWORK 10 – interface tower lamp, when push button is pressed once R – Y – G should be displayed continuously in a loop. Again when same push button is pressed the tower lamp should go off.

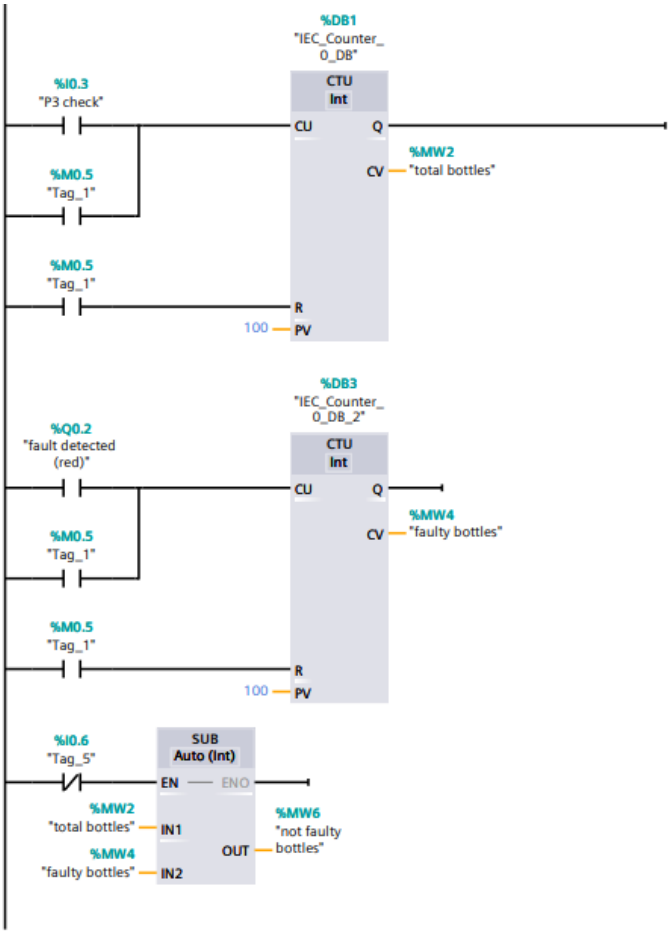


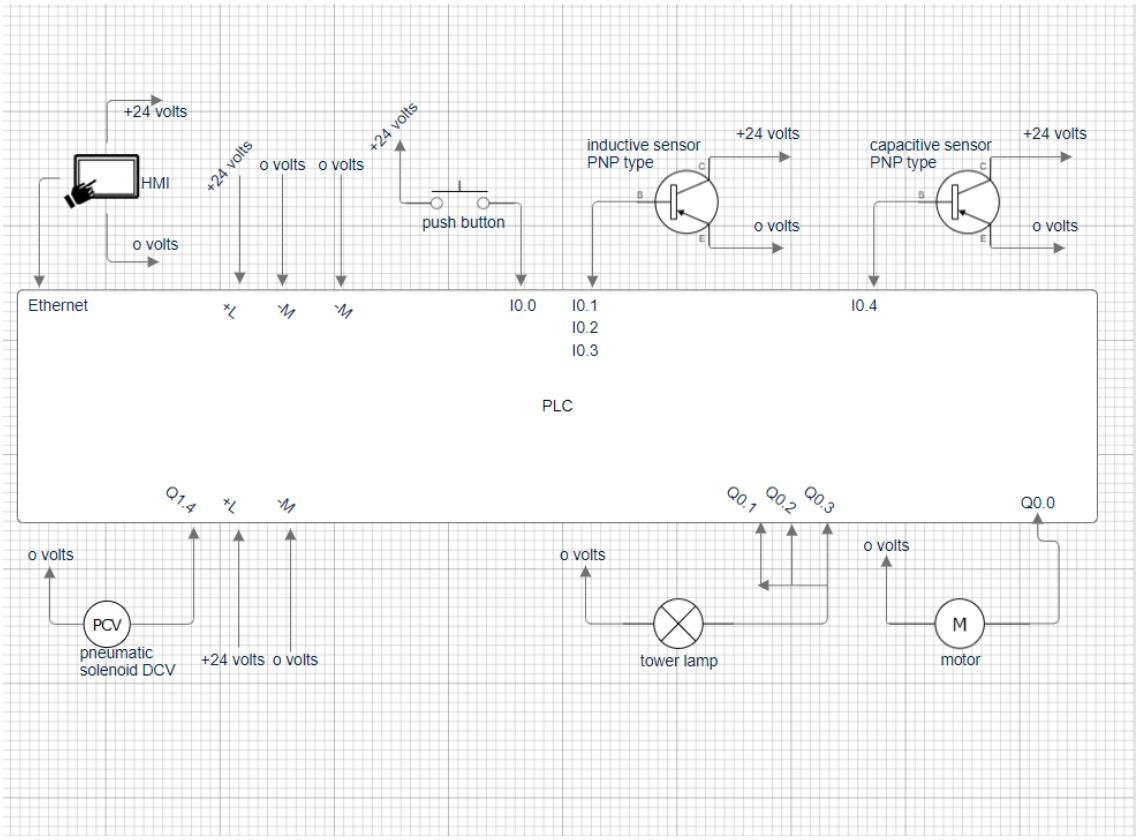


NETWORK 11 – Internship Project DEC-2023. Write a ladder diagram for filling, capping & checking of bottle that are continuously moving on a conveyor belt.






%DB1
"IEC_Counter_0_DB"
CTU
Int
%I0.3
"P3 check"
CU
Q
%MW2
CV
"total bottles"
%M0.5
"Tag_1"
%M0.5
"Tag_1"
R
100
PV
%DB3
"IEC_Counter_0_DB_2"
CTU
Int
%Q0.2
"fault detected (red)"
CU
Q
%MW4
CV
"faulty bottles"
%M0.5
"Tag_1"
%M0.5
"Tag_1"
R
100
PV
%I0.6
"Tag_5"
SUB
Auto (Int)
EN
ENO
%MW2
"total bottles"
IN1
%MW6
"not faulty bottles"
OUT
%MW4
"faulty bottles"
IN2


+24 volts
HMI
o volts
+24 volts
o volts
o volts
+24 volts
push button
inductive sensor
PNP type
+24 volts
o volts
capacitive sensor
PNP type
+24 volts
o volts
Ethernet
+L
-M
-M
I0.0
I0.1
I0.2
I0.3
I0.4
PLC
Q1.4
+L
-M
Q0.1
Q0.2
Q0.3
Q0.0
o volts
PCV
pneumatic solenoid DCV
+24 volts
o volts
o volts
tower lamp
o volts
M
motor