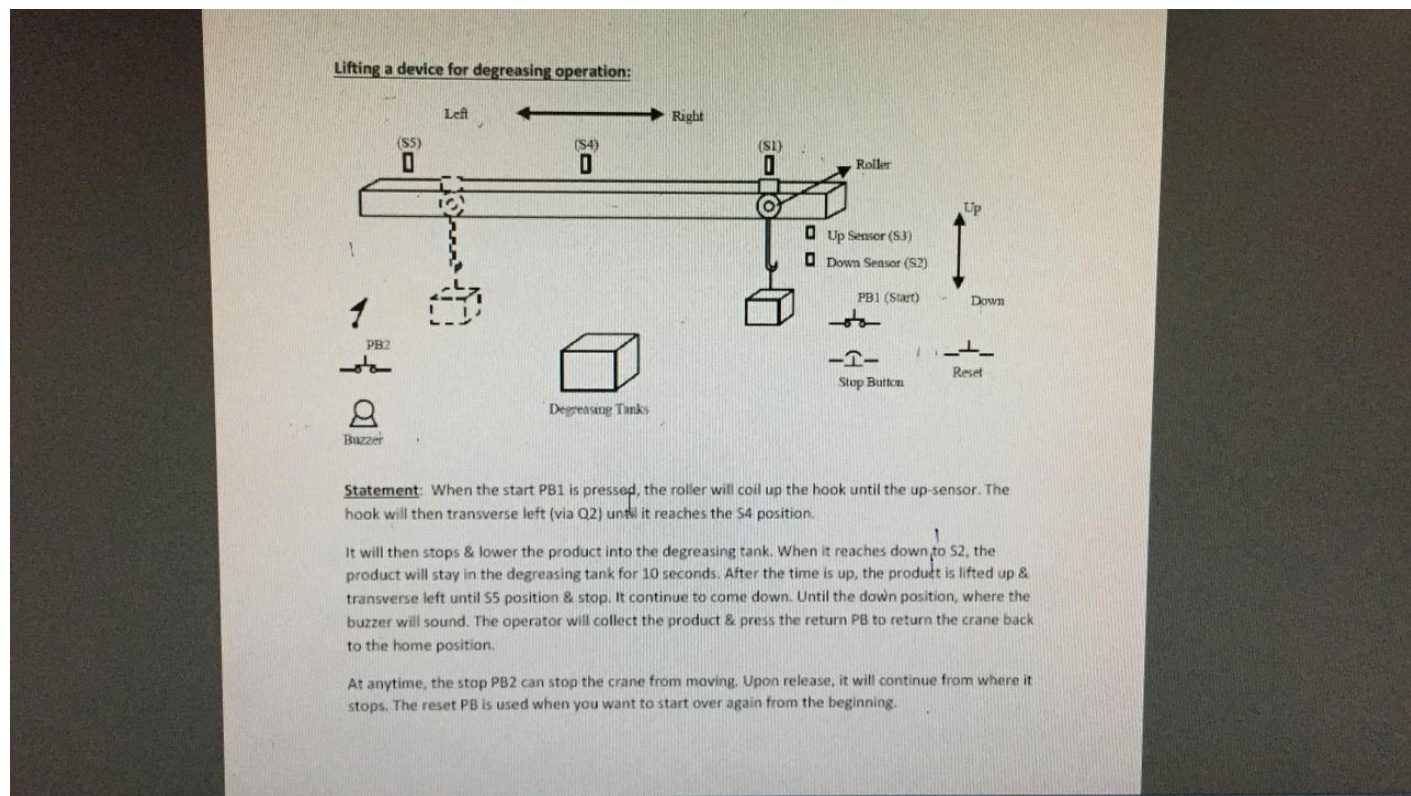# Introduction:

These are the Screenshots of the file "DEGtank.zm2". **" .zm2"** extension is for Zelio_Soft_2 software which belongs to **"Schneider Electric",** a well reputed company in the field of Industrial Automation.

Schneider Electric is a European multinational company providing energy and automation digital solutions for efficiency and sustainability. It addresses homes, buildings, data centers, infrastructure and industries,by combining energy technologies, real-time automation, software and services. Zelio_Soft_2 software belongs to the company itself.

In the Link box, the software link is provided to download the software to test the file of the project.

Problem Statement:

Lifting a device for degreasing operation:

Statement: When the start PB1 is pressed, the roller will coil up the hook until the up-sensor. The hook will then transverse left (via Q2) until it reaches the S4 position.

It will then stops & lower the product into the degreasing tank. When it reaches down to S2, the product will stay in the degreasing tank for 10 seconds. After the time is up, the product is lifted up & transverse left until S5 position & stop. It continue to come down. Until the down position, where the buzzer will sound. The operator will collect the product & press the return PB to return the crane back to the home position.

At anytime, the stop PB2 can stop the crane from moving. Upon release, it will continue from where it stops. The reset PB is used when you want to start over again from the beginning.

Sequence Operation for Executing the Project

I1 + I2 + I6	---------->	Q1(ON)
Q1(ON) + I3	---------->	Q1(OFF) + Q4(ON)
Q4(ON) + I4	---------->	Q4(OFF) + Q2(ON)
Q2(ON) + I2	---------->	Q2(OFF) + T1(ON for 10 sec)
T1(DONE)	---------->	Q1(ON)
Q1(ON) + I3	---------->	Q4(ON) + Q1(OFF)
Q4(ON) + I5	---------->	Q4(OFF) + Q2(ON)
Q2(ON) + I2	---------->	Q2(OFF) + Q5(ON)
Q5(ON) + ID	---------->	Q5(OFF) + Q1(ON)
Q1(ON) + I3	---------->	I1(OFF) + Q3(ON)
Q3(ON) + I1	---------->	Q3(OFF) + Q2(ON)
Q2(ON) + I2	---------->	Q2(OFF)

How to perform the sequence Operations:

1. Press I1, I2 and I6, by this Q1 will be on. Close I1,I6 and I2.
2. Then press I3. By this Q1 will be off and Q4 will be on. Close I3.
3. Then press I4. by this Q4 will be off and Q2 will be on. Close I4.
4. Press I2. By this Q2 will be off and after 10 seconds T1 (Timer will be on). Close I2
5. When the Timer bit will be done. Q1 will be On.
6. Press I3. Q4 will be on and Q1 will be off. CLose I3
7. Press I5. then Q4 will be off and Q2 will be On. Close I5
8. Press I2. then Q2 will be off and Q5 will be on. CLose I2
9. Then press ID. By this Q5 will be off and Q1 will be on. Close ID
10. I3 press. Then I1 will be off and Q3 will be on. Close I3
11. Press I1. Then Q3 will be off and Q2 will be on. Close I1
12. Press the I2 which will off the Q2 as well in the end. Close I2

Stop is used as - ->IB which will stop the operation at any moment,
Reset is used --> IC which will start from the starting point again,
PB2 is used -->ID, The ending point where the tank has to reach.

File   Edit   Mode   Module   Zelio2 COM   Transfer   Options   Display   Directories   Window   ?

75%

EDIT MODE

Zelio entry | Ladder entry | Configuration | Text entry

No	Contact 1	Contact 2	Contact 3	Contact 4	Contact 5	Coil	Comment
001							
002	I1	I2	I6	m2	iC	[M1	
003	M1						
004	M1	I3	m3	iC		[M2	
005	M2						
006	M2	I4	m4	iC		[M3	
007	M3						
008	M3	I2	m6	iC		[M4	
009	M4						
010	M4					TT1	

31 Row(s) / 240

SR2E201BD

Ready   COM1   V5.3

No	Contact 1	Contact 2	Contact 3	Contact 4	Contact 5	Coil	Comment
010	M4 —| |—					TT1 —()— ⊐t0	
011	T1 —| |— ⊐t0					[M5 —()—	
012	M5 —| |—	I3 —| |—	m7 —|/|—	iC —|/|—		[M6 —()—	
013	M6 —| |—						
014	M6 —| |—	I5 —| |—	q5 —|/|—	iC —|/|—		[M7 —()—	
015	M7 —| |—						
016	M7 —| |—	I2 —| |—	m8 —|/|—	iC —|/|—		[Q5 —()—	
017	Q5 —| |—						
018	Q5 —| |—	ID —| |—	q3 —|/|—	iC —|/|—		[M8 —()—	
019	M8 —| |—						

No	Contact 1	Contact 2	Contact 3	Contact 4	Contact 5	Coil	Comment
020	M8 —| |—	I3 —| |—	m9 —|/|—	iC —|/|—		[Q3 —()—	
021	Q3 —| |—						
022	Q3 —| |—	I1 —| |—	mA —|/|—	iC —|/|—		[M9 —()—	
023	M9 —| |—						
024	M9 —| |—	I2 —| |—				[MA —()—	
025	M1 —| |—	iB —|/|—				[Q1 —()—	
026	M5 —| |—						
027	M8 —| |—						
028	M3 —| |—	iB —|/|—				[Q2 —()—	
029	M7 —| |—						
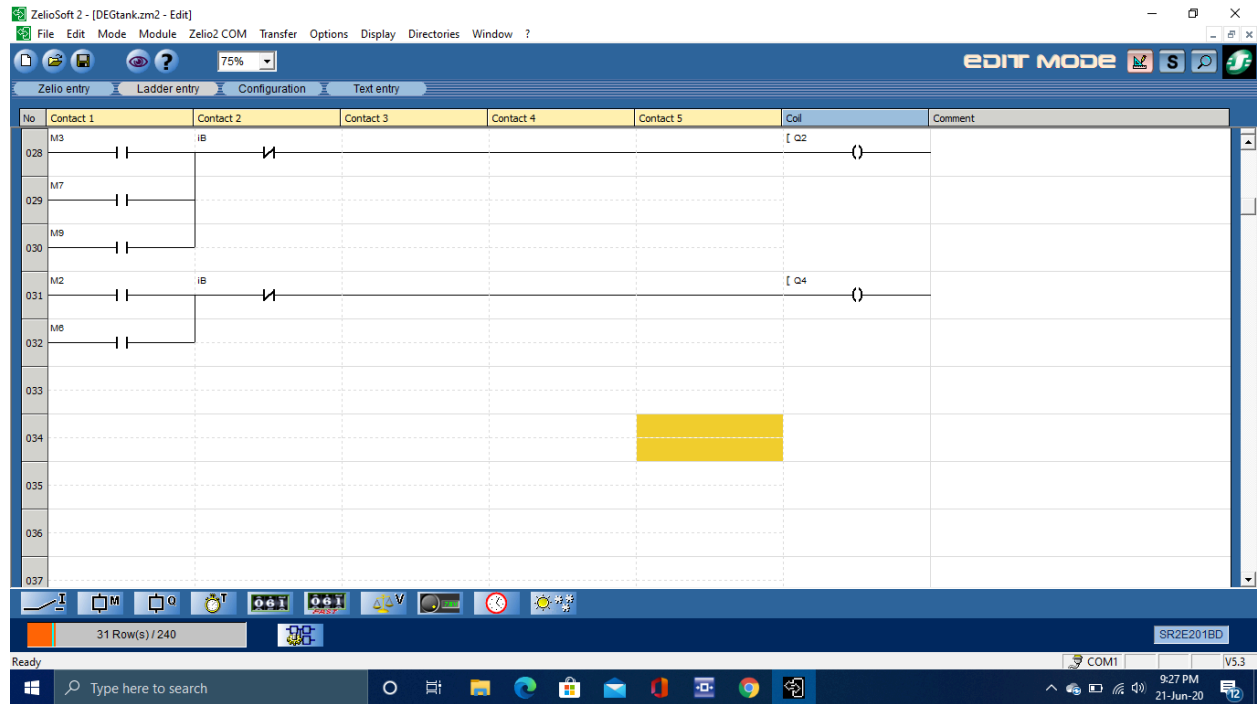
Link for the Execution of Project:

https://youtu.be/wljdrs0UbSE

https://drive.google.com/file/d/1pPk1S2OkgD8Z8LTFpCkV9RP6AG0oKxZP/view?usp=sharing