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## **Automação Industrial**



**Exercício.**

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**Prof. Bruno Eduardo Teixeira**

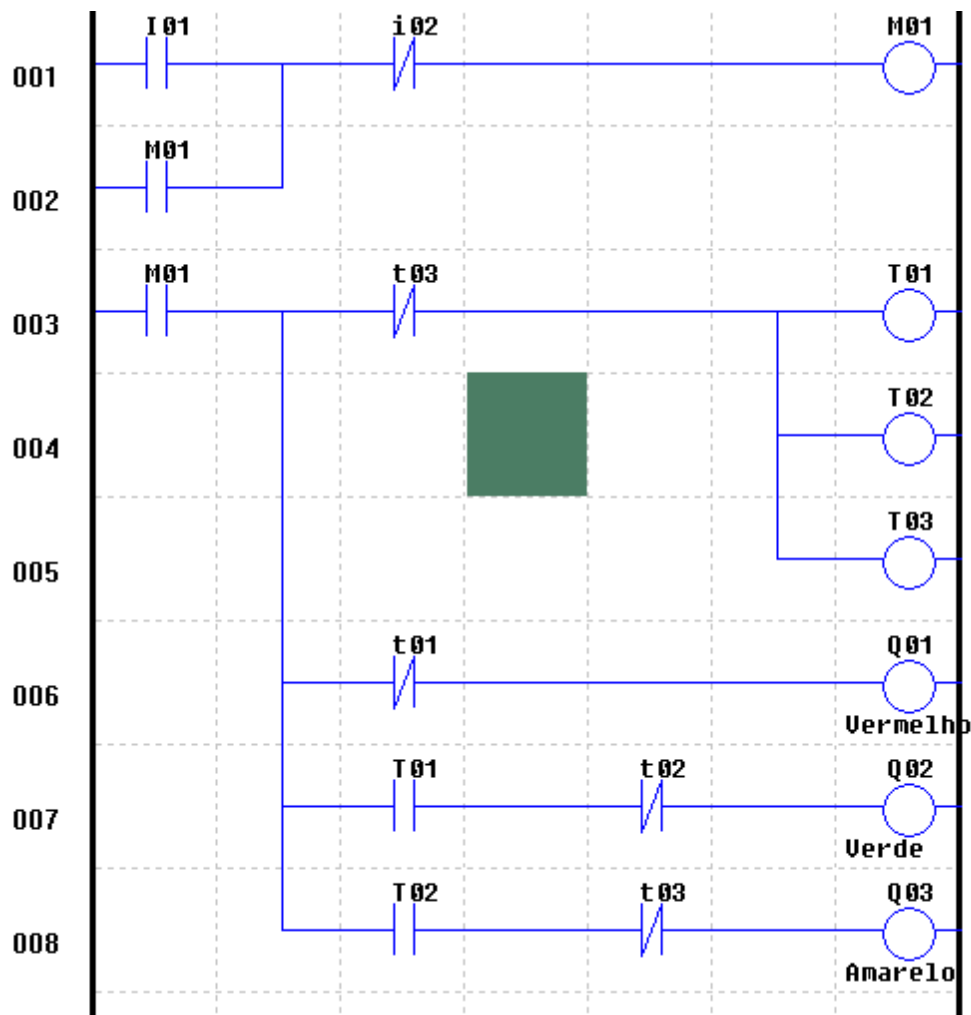
FUNDAÇÃO HERMÍNIO OMETTO

**ARARAS/SP**

**05/2021**

Adotaremos os seguintes componentes que ira simular o funcionamento de um semáforo:

**Três temporizadores no modo 1: T01 vermelho, T02 verde, T03 amarela, três lâmpadas e um push bottom para a carga inicial.**



Ao dar o pulso começará a contar desligando a Q1 ao atingir 5 segundos e ligando a Q2. O pulso chegando em 9 ele desligará a Q2 e ligará a Q3.

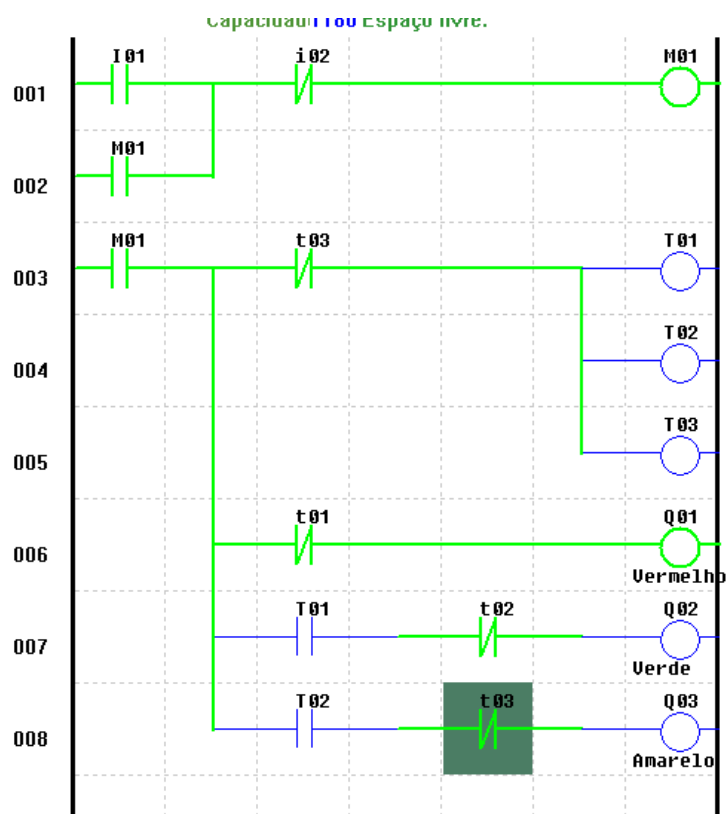


Figura 1 - Vermelho Ligado

MODO PC.

Simulação

Ferramenta do Estado das Entradas

	1	2	3	4	5	6	7	8	9	A	B	C
I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Z	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								

M0x ☐ 0 1 2 3 4 5 6 7 8 9 A B C D E F

N0x ☐ 0 1 2 3 4 5 6 7 8 9 A B C D E F

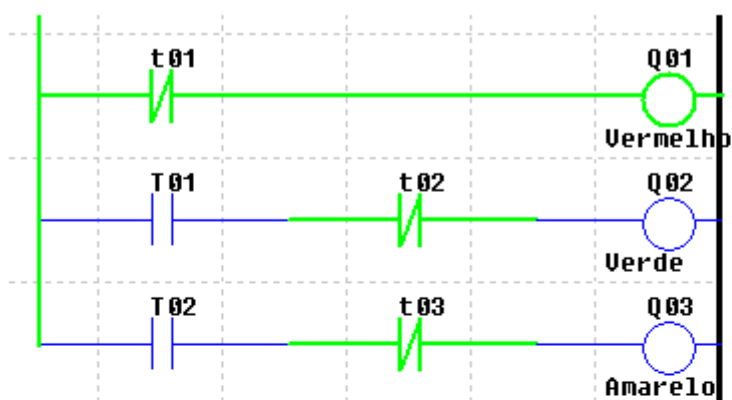
Expansão AT

AT1  
000.0  C

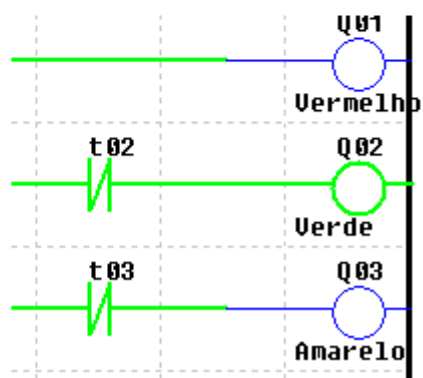
AT2  
000.0  C

AT3  
000.0  C

AT4  
000.0  C



3	1	0003	0005	T01
3	1	0003	0009	T02
3	1	0003	0012	T03



3	1	0005	0005	T01
3	1	0008	0009	T02
3	1	0008	0012	T03

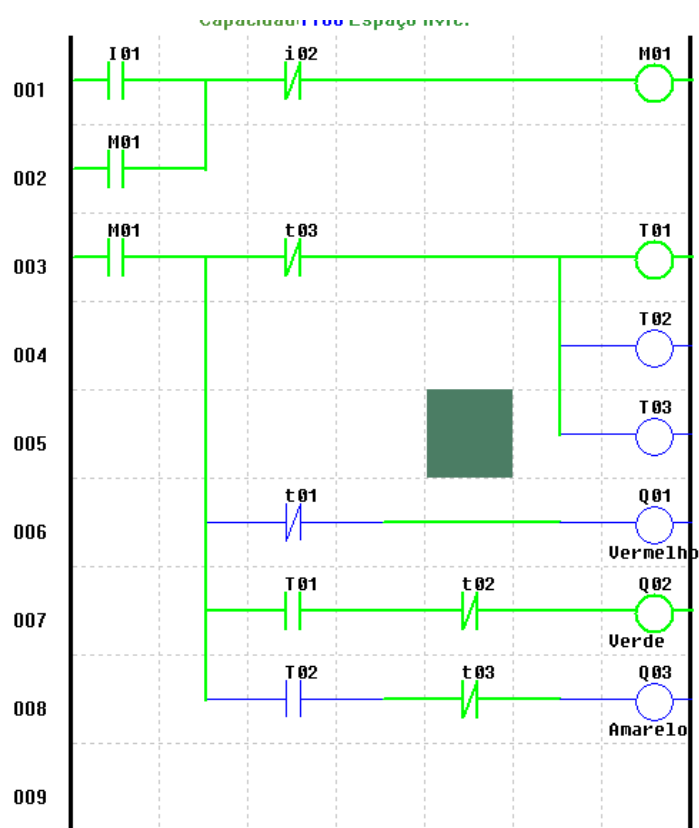


Figura 2 - Verde ligado

Modo F.O. Simulação

Ferramenta do Estado das Entradas

	1	2	3	4	5	6	7	8	9	A	B	C
I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Z	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

M0x ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F

N0x ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F

Expansão AT

AT1: 000.0 C

AT2: 000.0 C

AT3: 000.0 C

AT4: 000.0 C

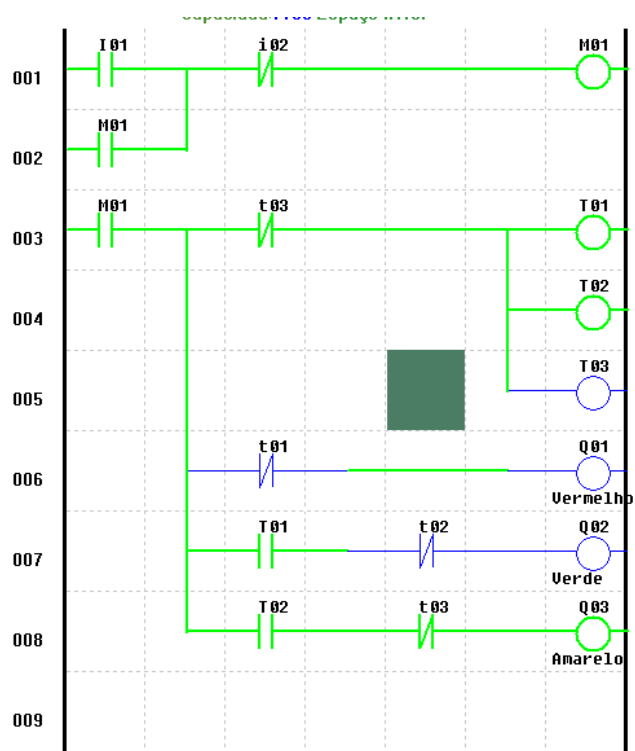


Figura 3 - Amarelo Ligado

Ferramenta do Estado das Entradas

	1	2	3	4	5	6	7	8	9	A	B	C
I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Z	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

M0x ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F

N0x ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F

Expansão AT

AT1: 000.0 C

AT2: 000.0 C

AT3: 000.0 C

AT4: 000.0 C