TAREFA 2 – SÍNTESE DE CIRCUITOS SEQUENCIAIS COM O MODELO DE MOORE

1. Tabela Verdade:

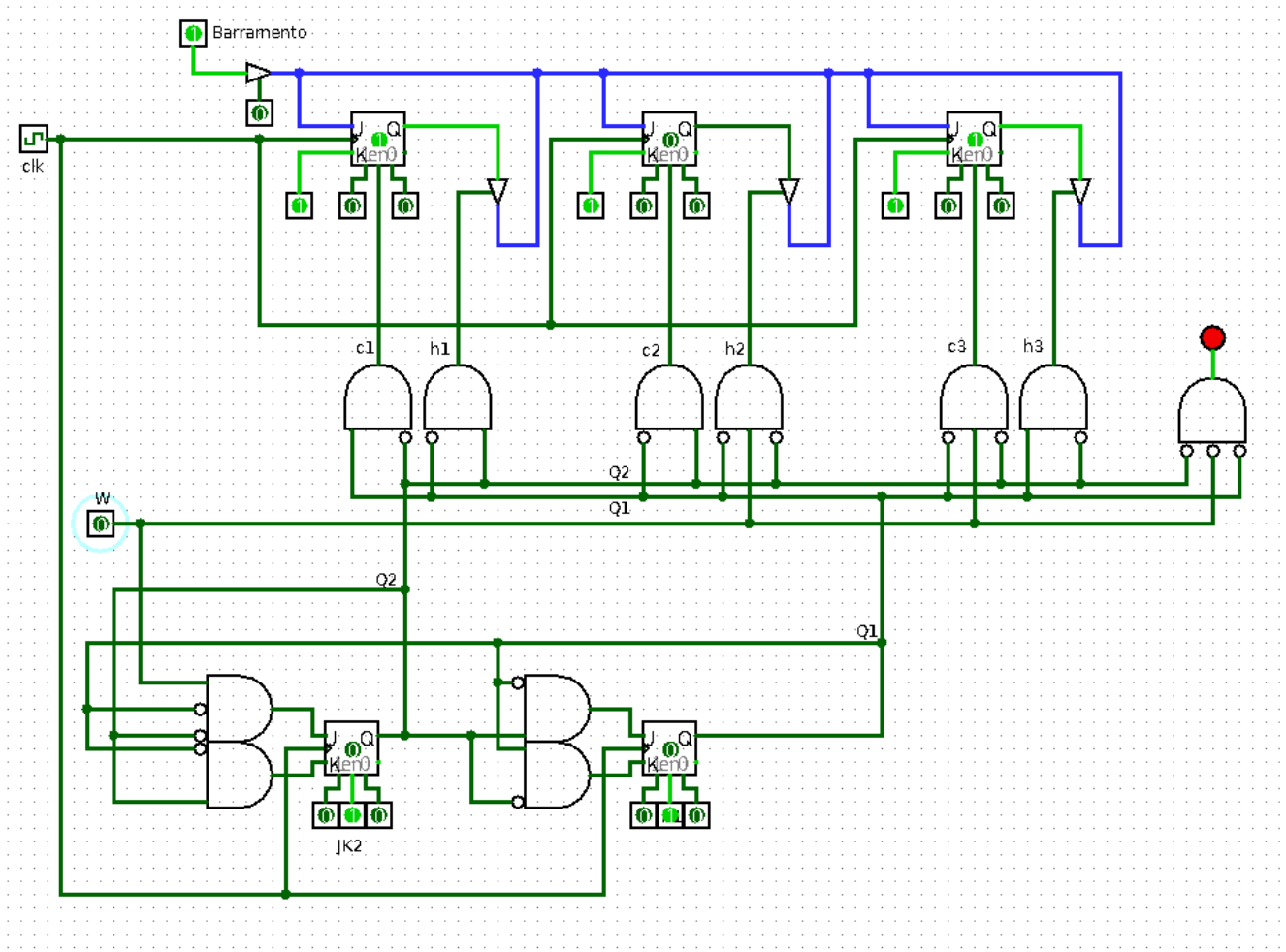
OPERAÇÃO	C1	C2	C3	H1	H2	H3	LED	W	J1	K1	J2	K2	$Q1_t$	$Q2_t$	$Q1_{t+1}$	$Q2_{t+1}$
RESET	0	0	0	0	0	0	1	0	0	X	0	X	0	0	0	0
R3 ← R2	0	0	1	0	1	0	0	1	0	X	1	X	0	0	0	1
R2 ← R1	0	1	0	1	0	0	0	X	1	X	X	1	0	1	1	0
R1 ← R3	1	0	0	0	0	1	0	X	X	1	0	X	1	0	0	0

2. Expressões Algebricas:

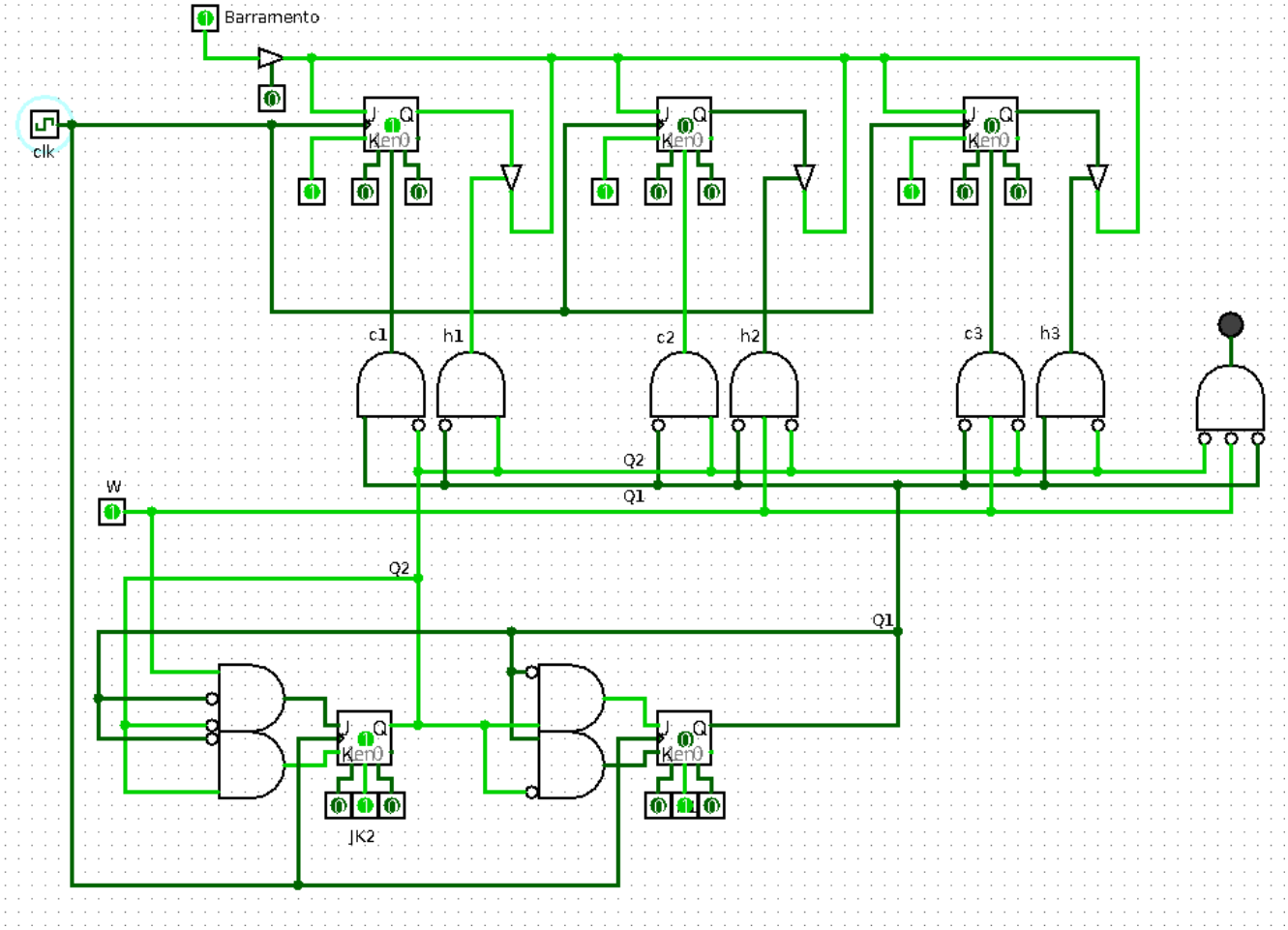
J1 = !Q1 * Q2
K1 = Q1 * !Q2
J2 = W * !Q1 * !Q2
K2 = !Q1 * Q2

C1 = Q1 * !Q2
C2 = !Q1 * Q2
C3 = W * !Q1 * !Q2
H1 = !Q1 * Q2
H2 = W * !Q1 * !Q2
H3 = Q1 * !Q2
LED = !W * !Q1 * !Q2

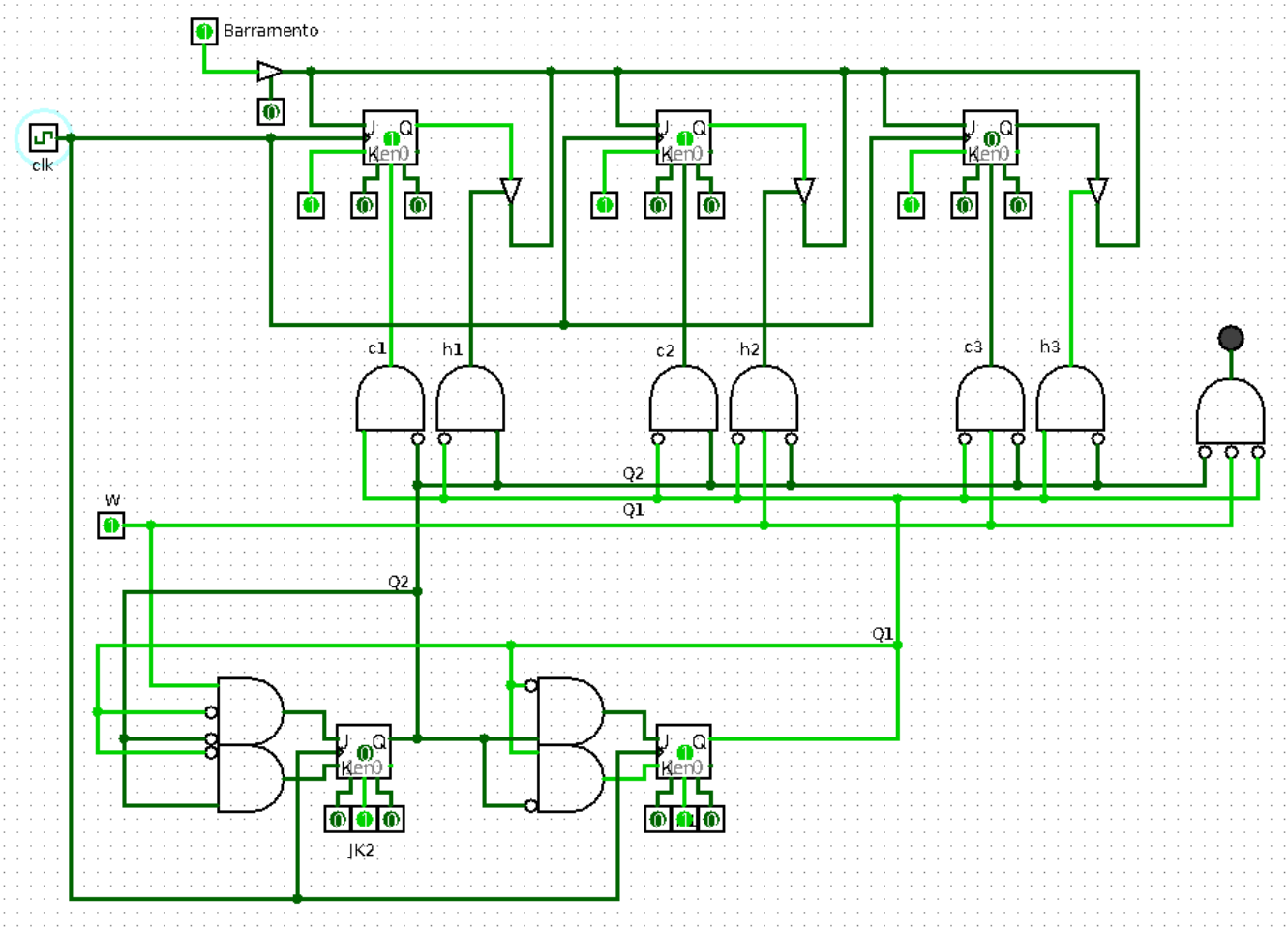
3. Circuito Implementado no LogiSim:
RESET:


Barramento
clk
J
Q
K
en
c1
h1
c2
h2
c3
h3
Q2
Q1
W
JK2

R3 ← R2:



R2 ← R1:



R1 ← R3: