

r	B	P	P_2	C_1	C_0	n_1	n_0	reset	red	orange	green	state
1	X	X	X	0	0	0	1	1	1	0	0	S0
0	X	X	X	0	0	0	0	0	1	0	0	S1
X	0	X	X	0	1	0	1	0	0	1	0	S2
X	1	X	X	0	1	1	0	0	0	0	1	S3
X	X	0	X	1	0	1	0					
X	X	1	X	1	0	1	1					
X	X	X	0	1	1	1	1					
X	X	X	1	1	1	0	0					

$$\text{reset} = S_0 \quad \text{red} = S_0 + S_1$$

$$\text{orange} = S_2 \quad \text{green} = S_3$$

$$n_1 = P_3 \cdot C_1' \cdot C_0 + P_2' \cdot C_1 \cdot C_0' + P_2 \cdot C_1 \cdot C_0' + P_{32}' \cdot C_1 \cdot C_0$$

$$P_3 \cdot C_1' \cdot C_0 + C_1 \cdot C_0' + P_{32}' \cdot C_1 \cdot C_0 = C_1 \cdot C_0' + C_0 (P_3 \cdot C_1' + P_{32}' \cdot C_1)$$

$$n_0 = r \cdot C_1' \cdot C_0' + P_3' \cdot C_1' \cdot C_0 + P_2 \cdot C_1 \cdot C_0' + P_{32}' \cdot C_1 \cdot C_0$$

$$C_1' (r \cdot C_0' + P_3' \cdot C_0) + C_1 (P_2 \cdot C_0' + P_{32}' \cdot C_0)$$

