

$$\begin{aligned}
Q_1^{n+1} &= \overline{Q_1} \\
Q_2^{n+1} &= \overline{Q_4 Q_2} \\
Q_3^{n+1} &= \overline{Q_3} \\
Q_4^{n+1} &= \overline{Q_4 Q_3 Q_2} \\
Z &= Q_4 Q_1 X
\end{aligned}$$

$$\begin{aligned}
Y &= Q_1 X \\
T_0 &= 1 \\
T_1 &= X \oplus Q_0 \\
Q_0^{n+1} &= Q_0 \oplus T_0 = Q_0 \\
Q_1^{n+1} &= Q_1 \oplus T_1 = Q_1 \oplus X \oplus Q_0
\end{aligned}$$