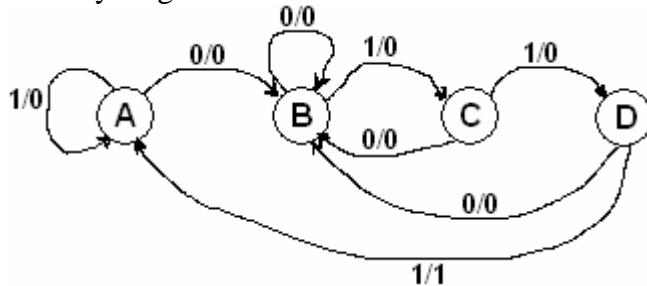


Vybrané příklady dekodérů posloupností. Zapojení je pomocí hradel NAND.

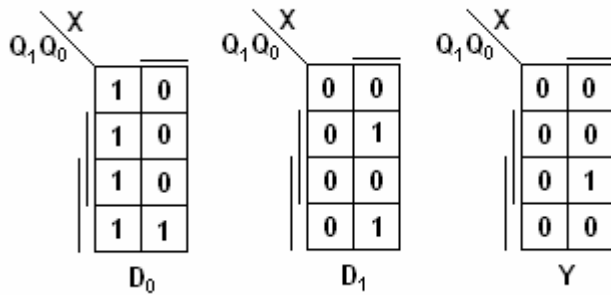
Posloupnost – 011

Stavový diagram:



	Q ₁	Q ₀	X=0	X=1	X=0	X=1
A	0	0	B,0	A,0	01,0	00,0
B	0	1	B,0	C,0	01,0	10,0
C	1	0	B,0	D,0	01,0	11,0
D	1	1	B,0	A,1	01,0	00,1

Přechodové a výstupní funkce:

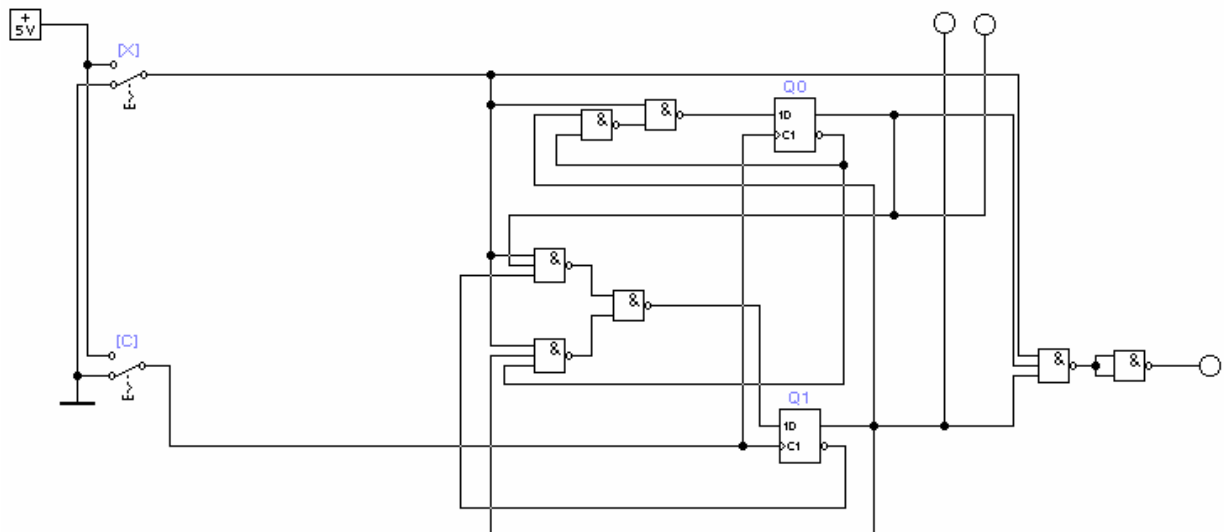


$$D_0 = \bar{X} + Q_1 \cdot \bar{Q}_0 \quad D_1 = X \cdot \bar{Q}_1 \cdot Q_0 + X \cdot Q_1 \cdot \bar{Q}_0 \quad Y = X \cdot Q_1 \cdot Q_0$$

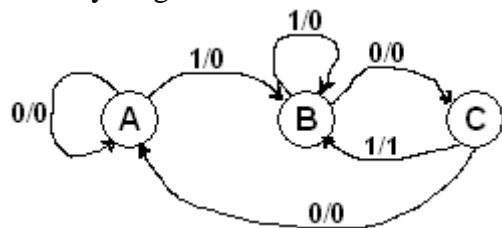
$$D_0 = \overline{\overline{\bar{X} + Q_1 \cdot \bar{Q}_0}} = \overline{X \cdot Q_1 \cdot Q_0}$$

$$D_1 = X \cdot \bar{Q}_1 \cdot Q_0 + X \cdot Q_1 \cdot \bar{Q}_0 = \overline{\overline{X \cdot \bar{Q}_1 \cdot Q_0} \cdot \overline{X \cdot Q_1 \cdot \bar{Q}_0}}$$

Schéma zapojení:



Stavový diagram:



	Q ₁	Q ₀	X=0	X=1	X=0	X=1
A	0	0	A,0	B,0	00,0	01,0
B	0	1	C,0	B,0	10,0	01,0
C	1	0	A,0	B,1	00,0	01,1

Přechodová a výstupní funkce:

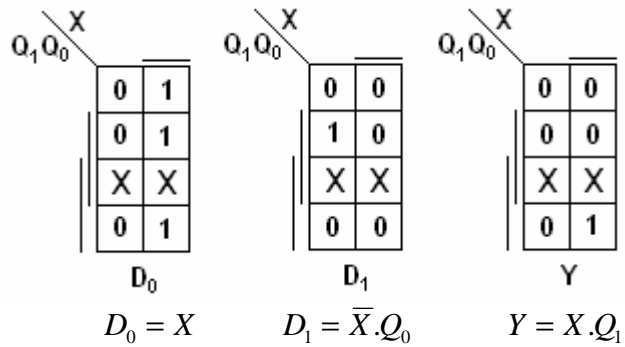
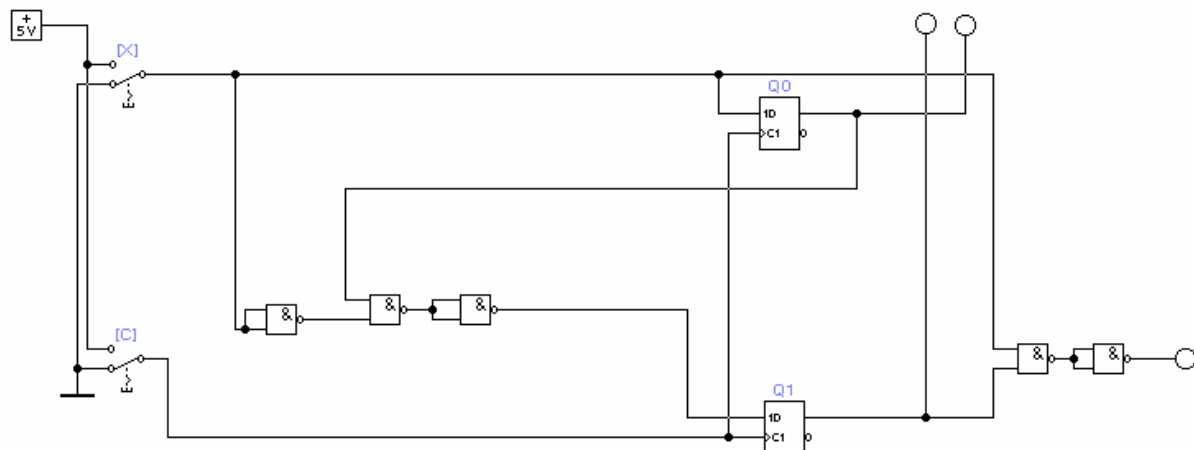
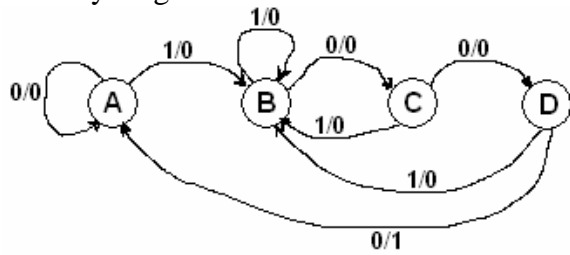


Schéma zapojení:

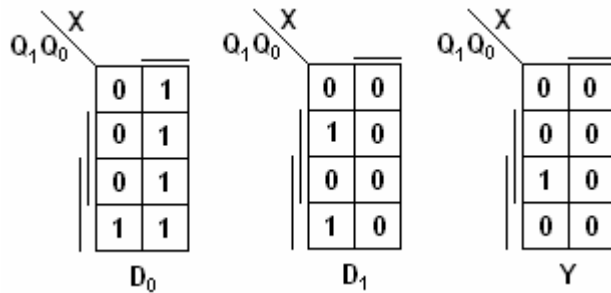


Stavový diagram:



	Q ₁	Q ₀	X=0	X=1	X=0	X=1
A	0	0	A,0	B,0	00,0	01,0
B	0	1	C,0	B,0	10,0	01,0
C	1	0	D,0	B,0	11,0	01,0
D	1	1	A,1	B,0	00,1	01,0

Přechodové a výstupní funkce:

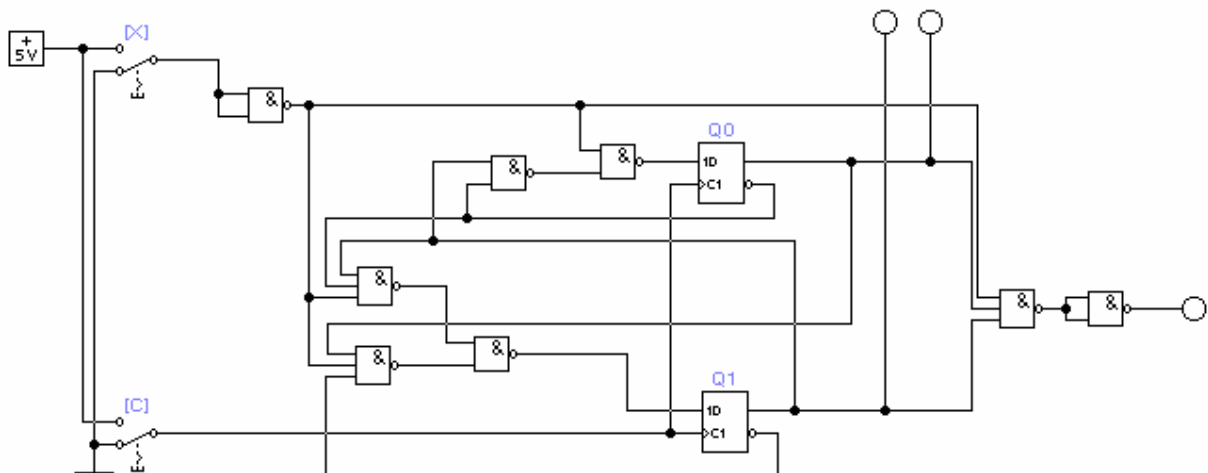


$$D_0 = X + Q_1 \cdot \overline{Q_0} \quad D_1 = \overline{X} \cdot \overline{Q_1} \cdot Q_0 + \overline{X} \cdot Q_1 \cdot \overline{Q_0} \quad Y = \overline{X} \cdot Q_1 \cdot Q_0$$

$$D_0 = \overline{\overline{X + Q_1 \cdot \overline{Q_0}}} = \overline{\overline{X} \cdot \overline{Q_1} \cdot Q_0}$$

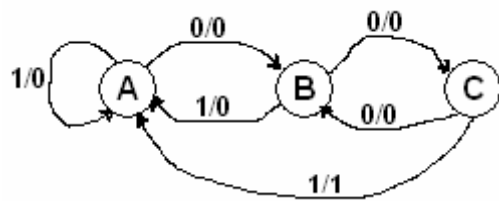
$$D_1 = \overline{\overline{\overline{X} \cdot \overline{Q_1} \cdot Q_0 + \overline{X} \cdot Q_1 \cdot \overline{Q_0}}} = \overline{\overline{\overline{X} \cdot \overline{Q_1} \cdot Q_0} \cdot \overline{\overline{X} \cdot Q_1 \cdot \overline{Q_0}}}$$

Schéma zapojení:



Posloupnost – 001

Stavový diagram:



	Q ₁	Q ₀	X=0	X=1	X=0	X=1
A	0	0	B,0	A,0	01,0	00,0
B	0	1	C,0	A,0	10,0	00,0
C	1	0	B,0	A,1	01,0	00,1

Přechodové a výstupní funkce:

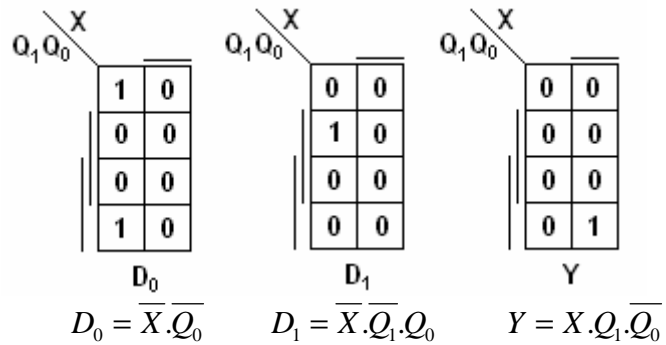


Schéma zapojení:

