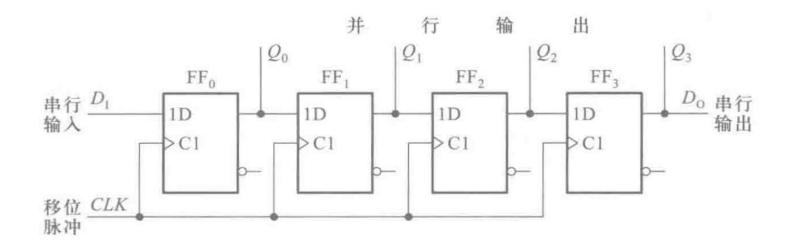
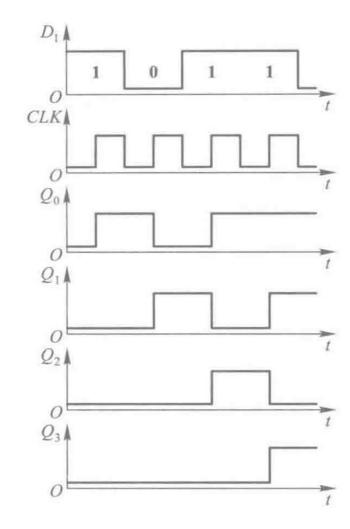
Shift Register



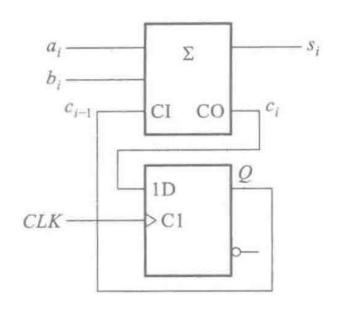
- Serial in/serial out
- Serial in/parallel out

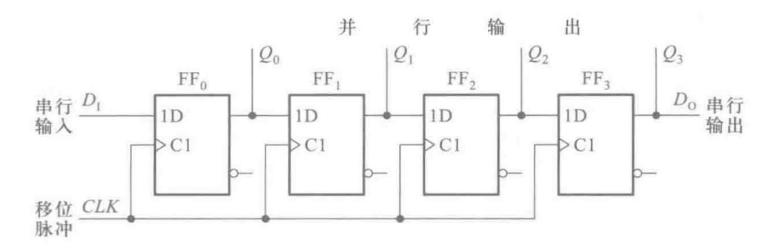
Shift Register

4	1	1	1	0	1
3	1	1	0	1	0
2	0	0	1	0	0
Ī	1	1	0	0	0
0	0	0	0	0	0
CLK 的顺序	输入 D,	Q_{0}	Q_{+}	Q_2	Q_3

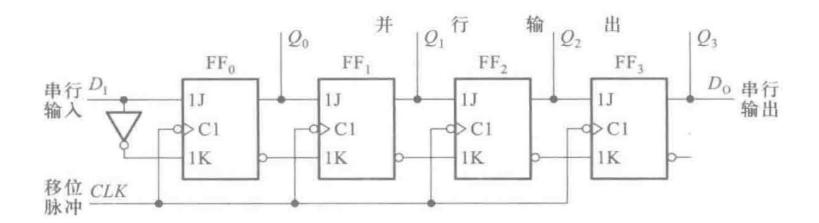


Adder Using Shift Register





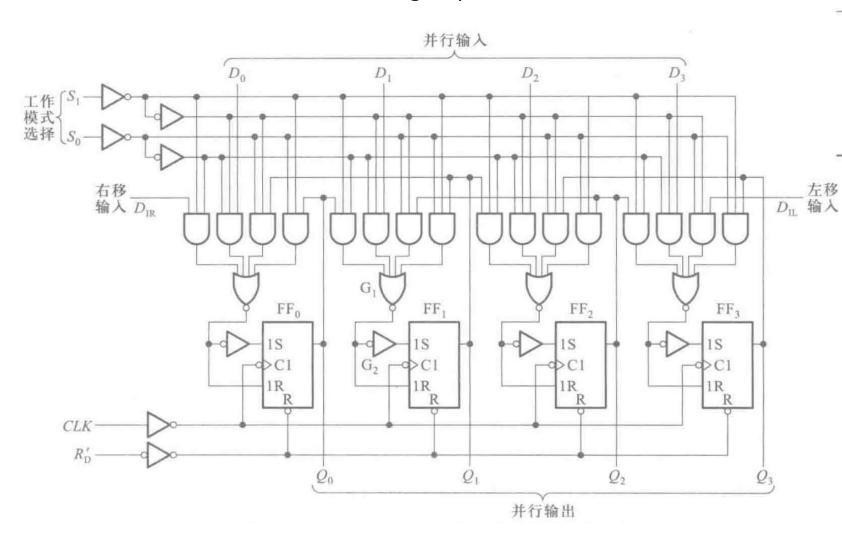
Shift Register using JK FF



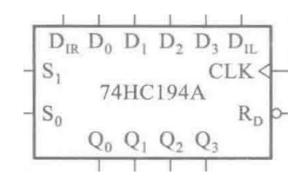
- Serial in/serial out
- Serial in/parallel out

4 bit Shift Register – 74HC194A

• One also need shift left, shift right, parallel load and hold function

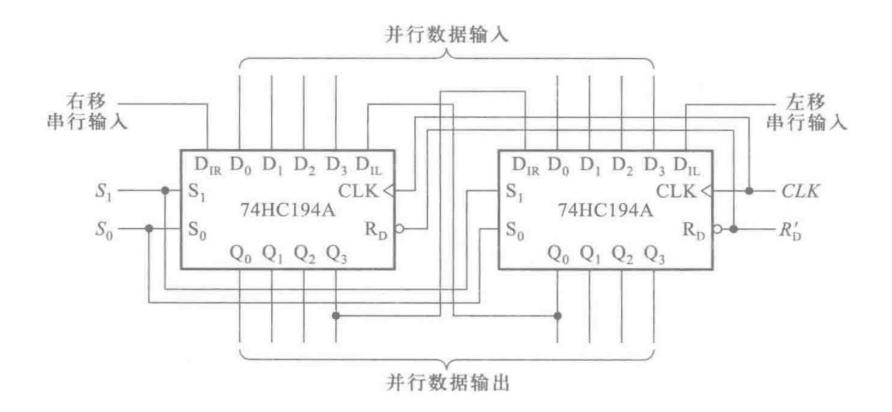


$R_{\scriptscriptstyle \mathrm{D}}^{\prime}$	S_1	S_0	工作状态	
0	×	×	置零	
1	0	0	保持	
1	0	1	右移	
1	1	0	左移	
1	1	1	并行输入	



8 bit Shift Register

Use two 74HC194A to construct a 8 bit shift register



Reading materials

- Chapter 8 of Floyd book
- Section 6.3.1 of 阎石 book