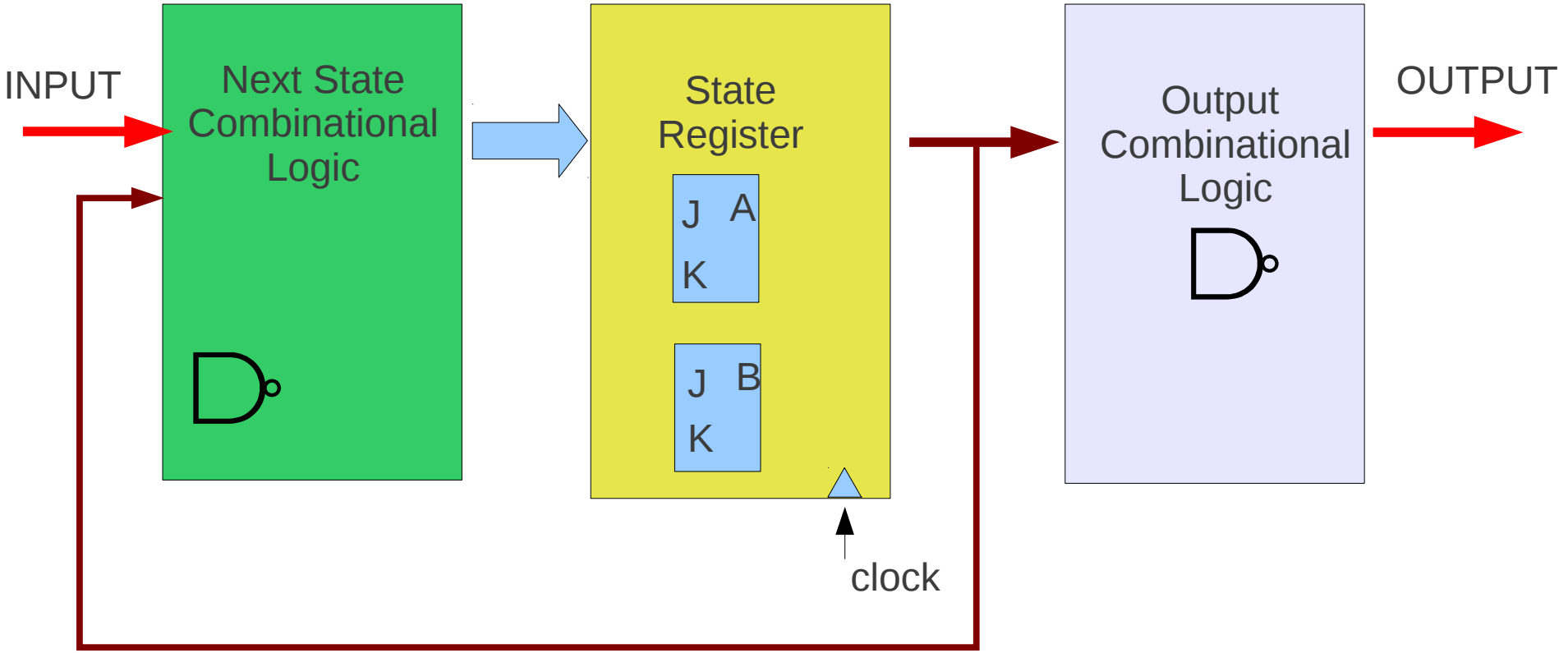
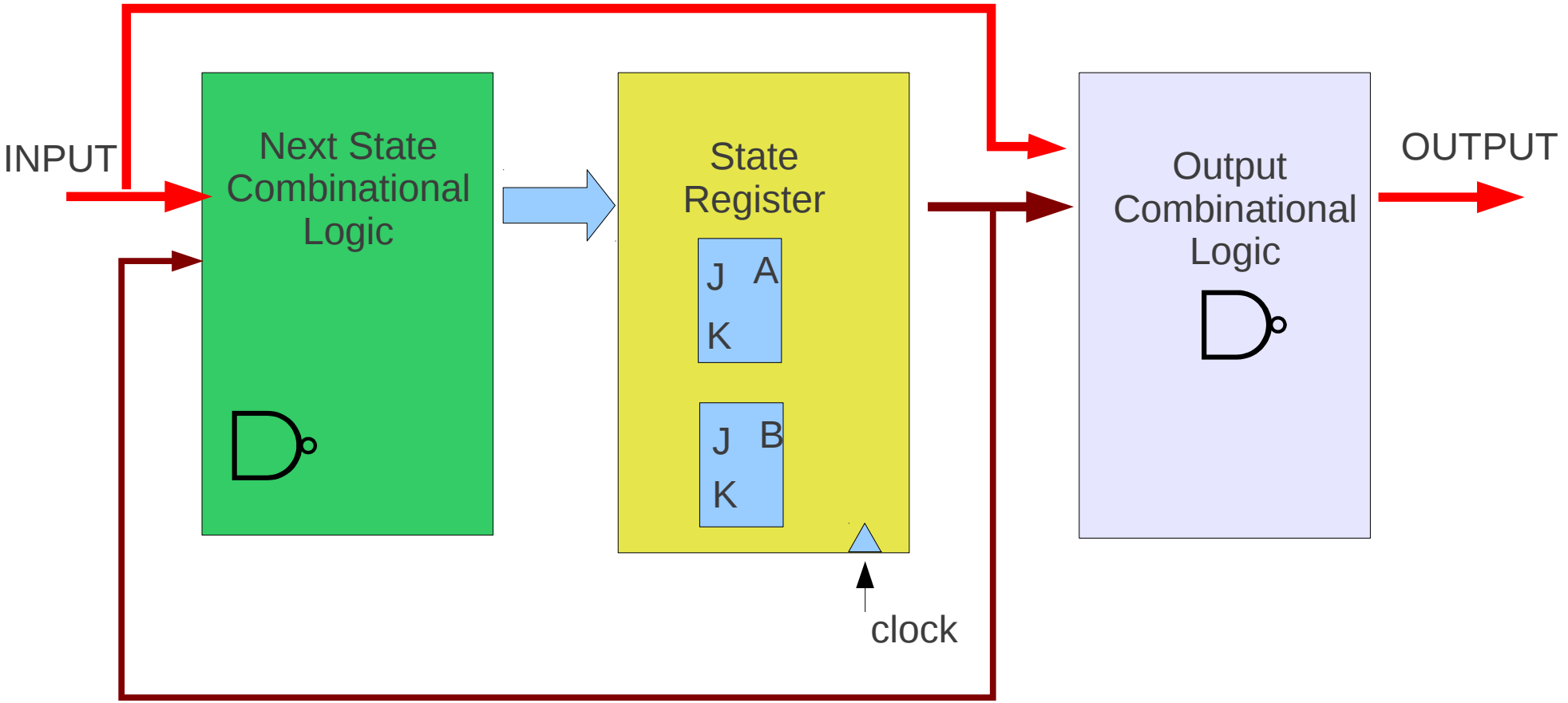
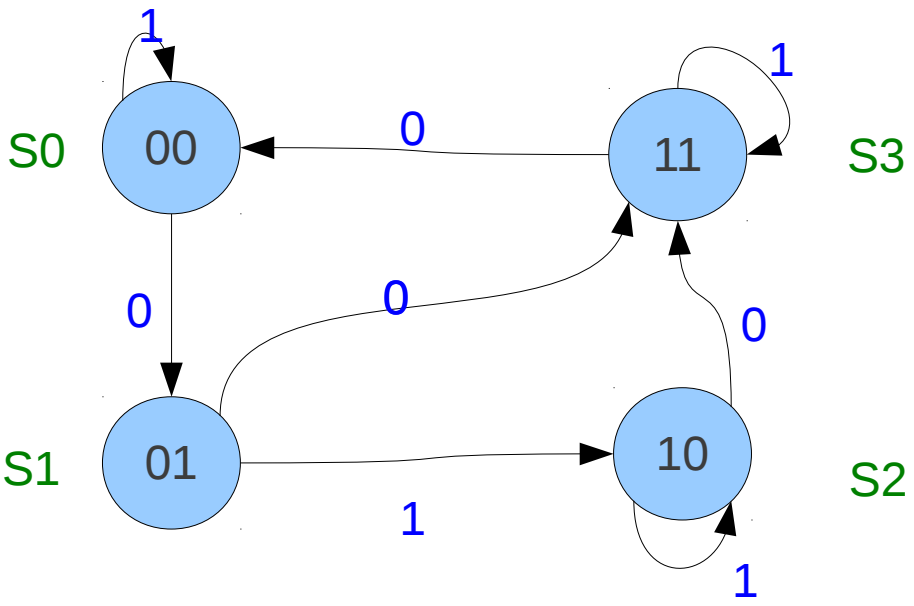
Moore Machine



Mealy Machine



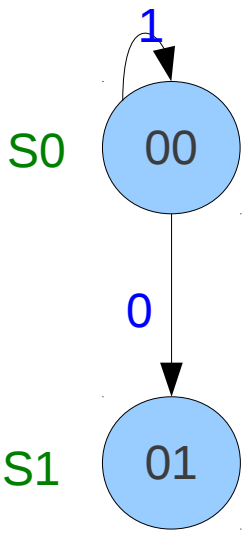
State Diagram



State Table 5.4

present State		input	next State		FF Inputs			
A	B	x	A	B	JA	KA	JB	KB
0	0	0	0	1	0	0	1	0
0	0	1	0	0	0	0	0	1
0	1	0	1	1	1	1	1	0
0	1	1	1	0	1	0	0	1
1	0	0	1	1	0	0	1	1
1	0	1	1	0	0	0	0	0
1	1	0	0	0	1	1	1	1
1	1	1	1	1	1	0	0	0

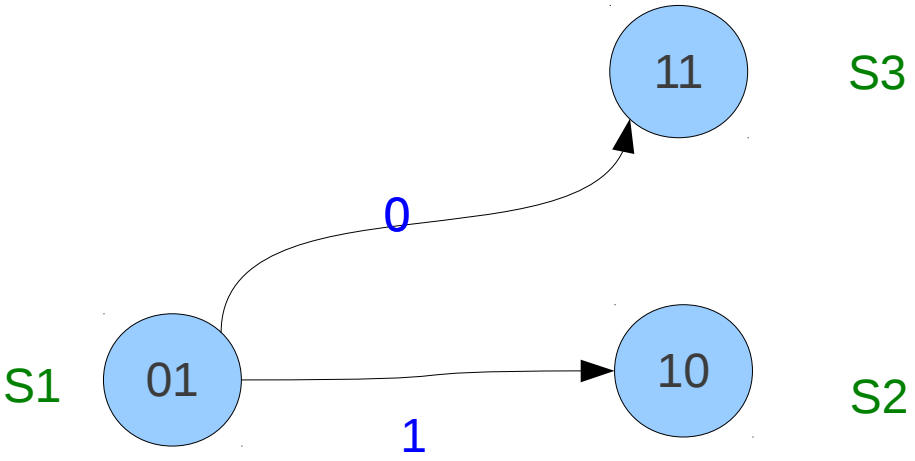
State Diagram



State Table

present State		input	next State		FF Inputs			
A	B	x	A	B	JA	KA	JB	KB
0	0	0	0	1	0	0	1	0
0	0	1	0	0	0	0	0	1
0	1	0	1	1	1	1	1	0
0	1	1	1	0	1	0	0	1
1	0	0	1	1	0	0	1	1
1	0	1	1	0	0	0	0	0
1	1	0	0	0	1	1	1	1
1	1	1	1	1	1	0	0	0

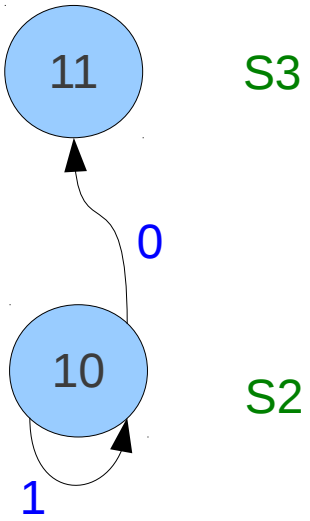
State Diagram



State Table

present State		input	next State		FF Inputs			
A	B	x	A	B	JA	KA	JB	KB
0	0	0	0	1	0	0	1	0
0	0	1	0	0	0	0	0	1
0	1	0	1	1	1	1	1	0
0	1	1	1	0	1	0	0	1
1	0	0	1	1	0	0	1	1
1	0	1	1	0	0	0	0	0
1	1	0	0	0	1	1	1	1
1	1	1	1	1	1	0	0	0

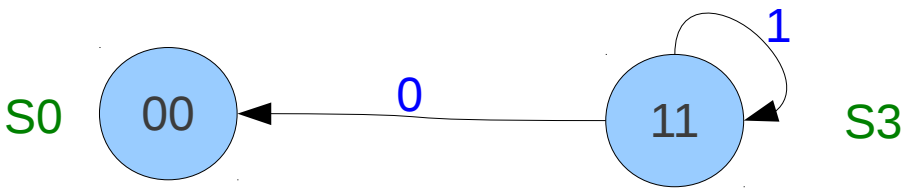
State Diagram



State Table

present State		input	next State		FF Inputs			
A	B	x	A	B	JA	KA	JB	KB
0	0	0	0	1	0	0	1	0
0	0	1	0	0	0	0	0	1
0	1	0	1	1	1	1	1	0
0	1	1	1	0	1	0	0	1
1	0	0	1	1	0	0	1	1
1	0	1	1	0	0	0	0	0
1	1	0	0	0	1	1	1	1
1	1	1	1	1	1	0	0	0

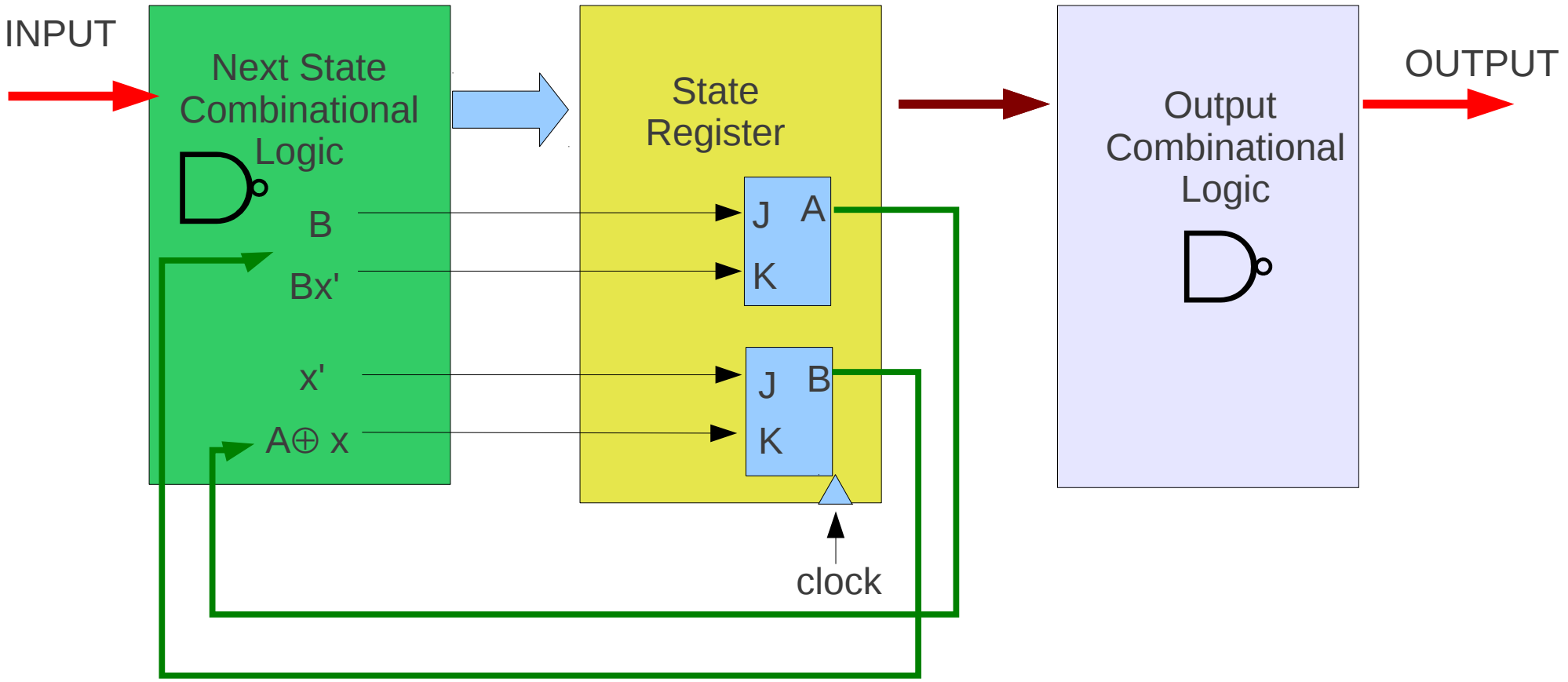
State Diagram



State Table 5.4

present State		input	next State		FF Inputs			
A	B	x	A	B	JA	KA	JB	KB
0	0	0	0	1	0	0	1	0
0	0	1	0	0	0	0	0	1
0	1	0	1	1	1	1	1	0
0	1	1	1	0	1	0	0	1
1	0	0	1	1	0	0	1	1
1	0	1	1	0	0	0	0	0
1	1	0	0	0	1	1	1	1
1	1	1	1	1	1	0	0	0

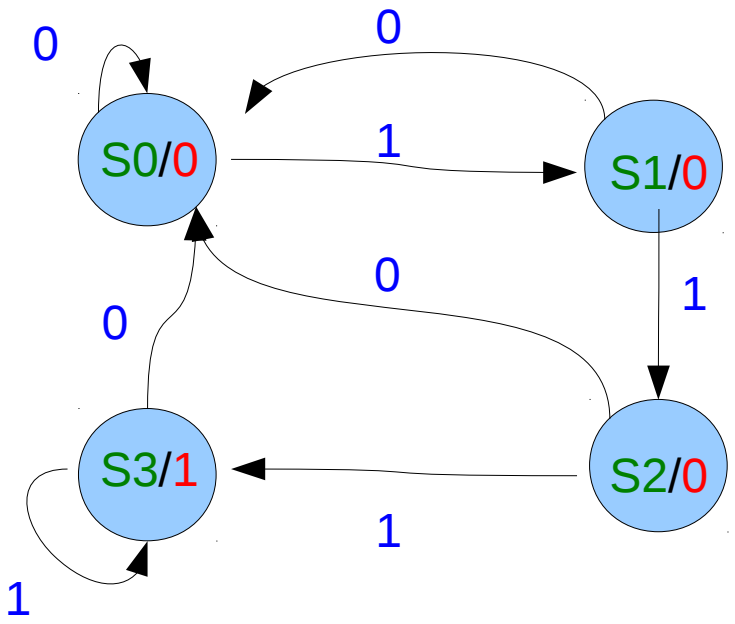
Moore Machine



Characteristic Equations

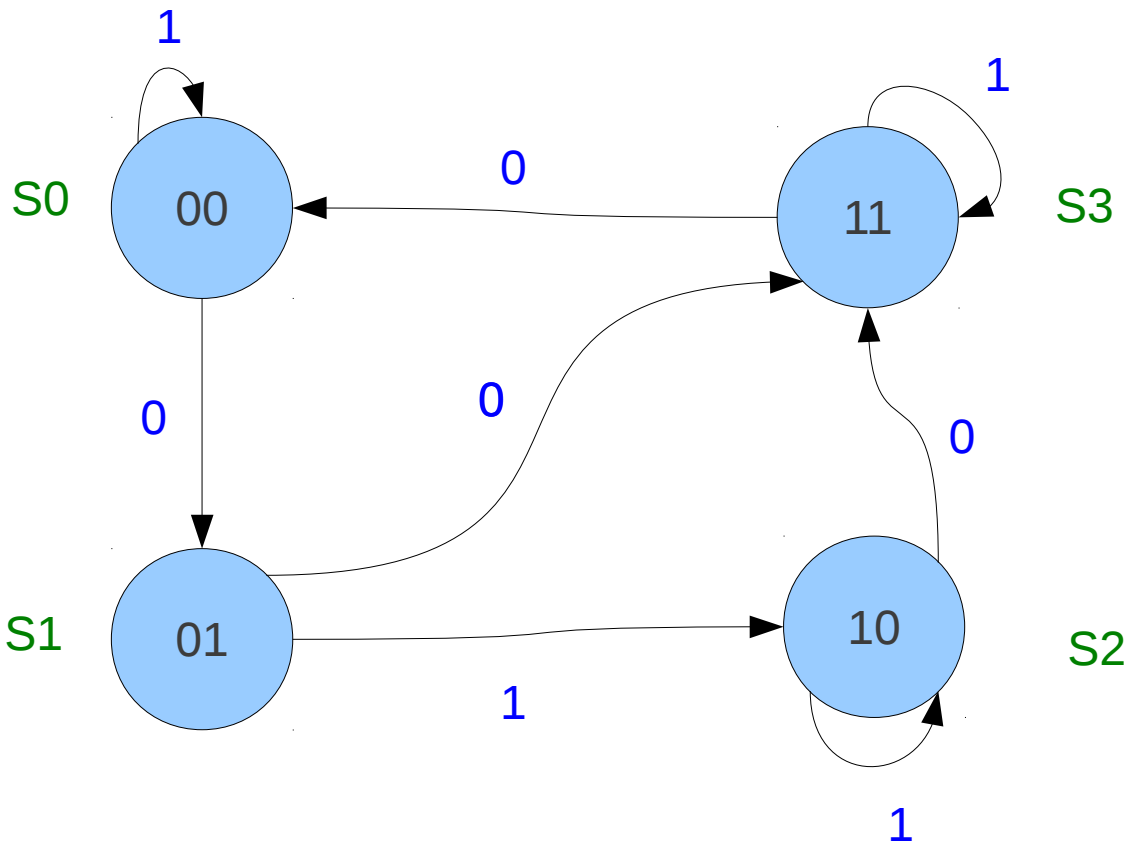
Q(t+1) = D	**D** FlipFlop
Q(t+1) = JQ' + K'Q	**JK** FlipFlop
Q(t+1) = T Q = TQ' + T'Q	**T** FlipFlop

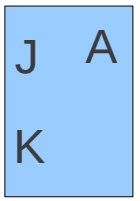
State Diagram in Fig 5.27

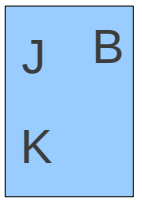


State Table 5.11

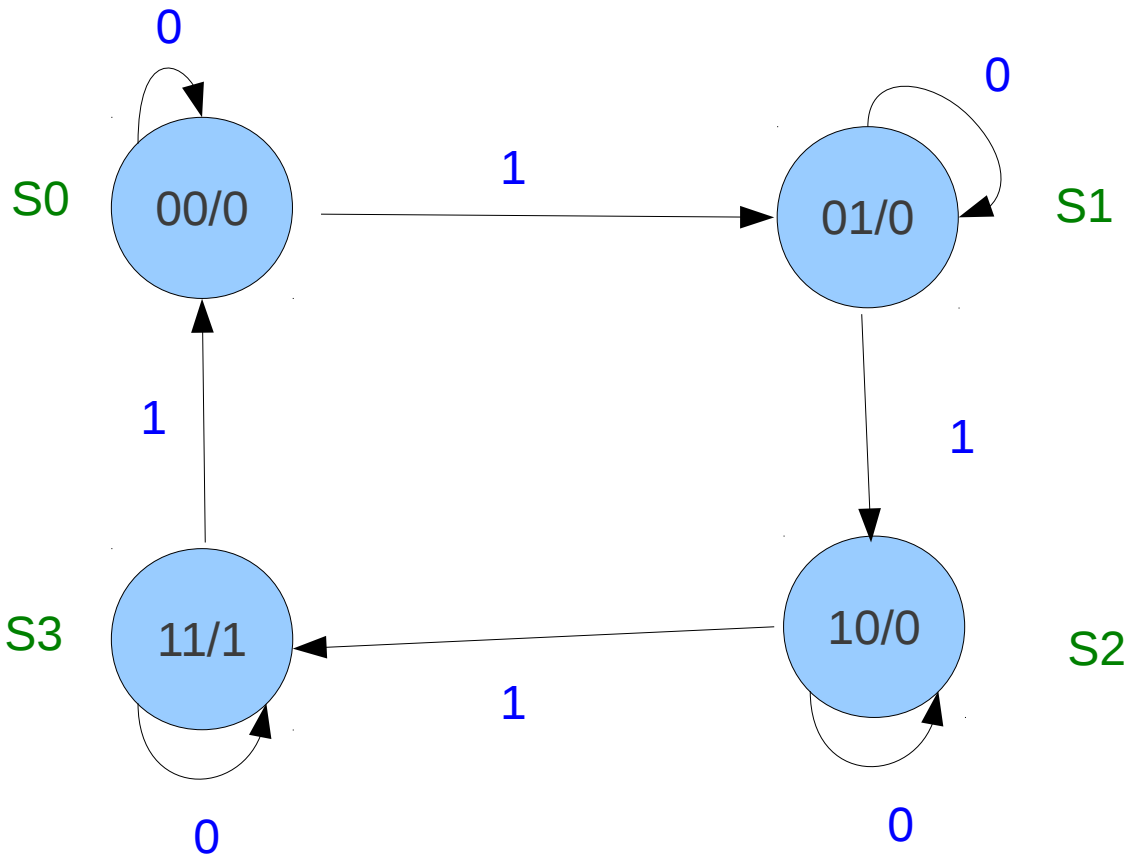
present State		input	next State		FF Inputs				Output
A	B	x	A	B	JA	KA	JB	KB	
0	0	0	0	0					0
0	0	1	0	1					0
0	1	0	0	0					0
0	1	1	1	0					0
1	0	0	0	0					0
1	0	1	1	1					0
1	1	0	0	0					1
1	1	1	1	1					1

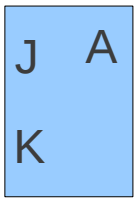

1
S0
00
0
11
1
S3
0
0
0
S1
01
10
S2
1
1

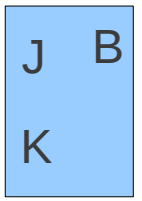

J A
K


J B
K

State Diagram in Fig 5.20







State Diagram from Table 5.13