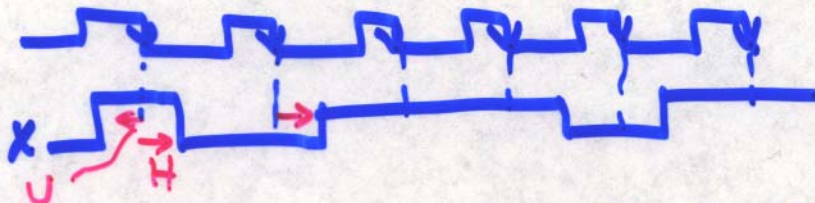
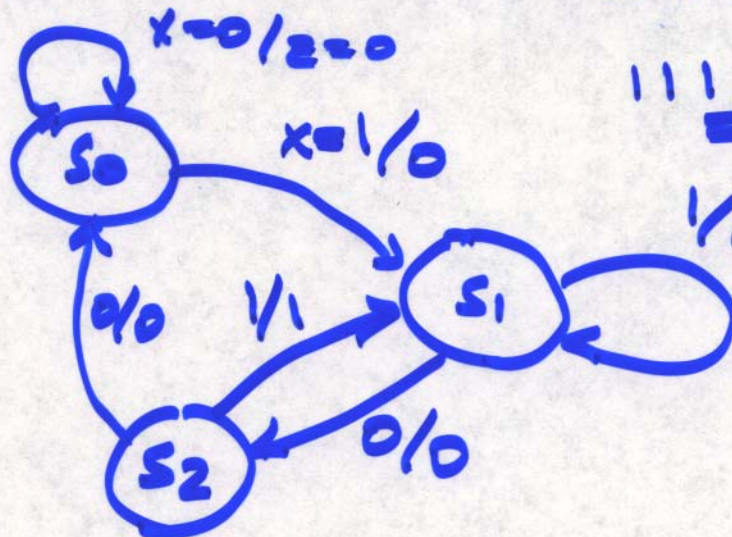


Comb lock.



X = 0 0 1 1 0 1 1 0 0 1 0 1 0 0 0 0

Z = 0 0 0 0 0 1 0 0 0 0 0 1 0 1 0 0



11101

 100
 101

Design of a Sequence Detector

		B			
		0	1	-	0
X	0	0	0	-	0
	1	0	0	-	0

A

$$D_A = \bar{X} B$$

		B			
		0	0	-	0
X	0	0	0	-	0
	1	1	1	-	1

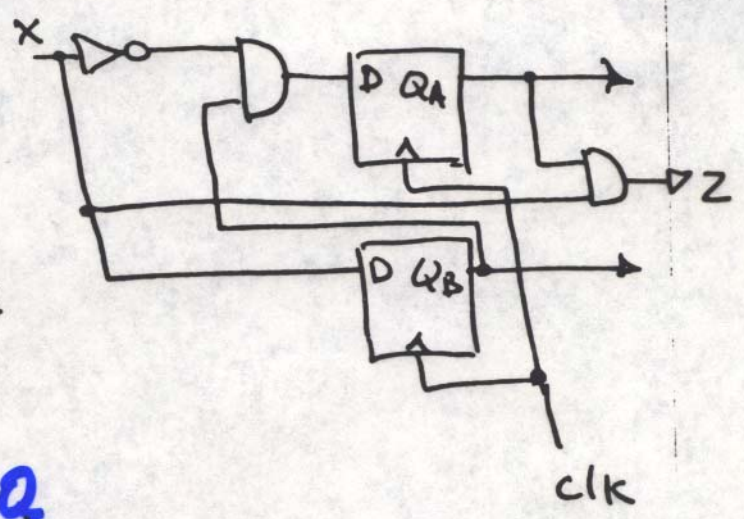
A

$$D_B = X$$

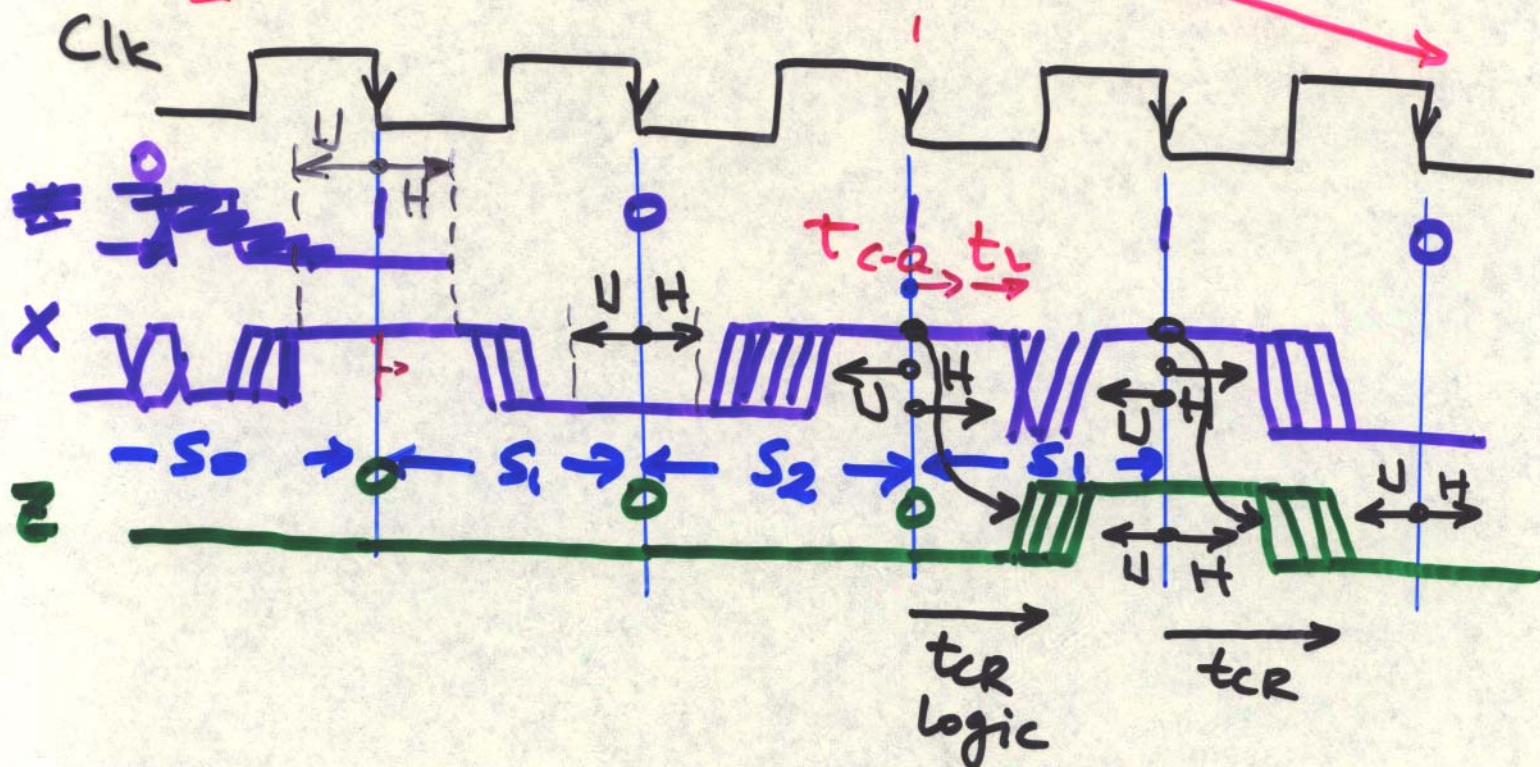
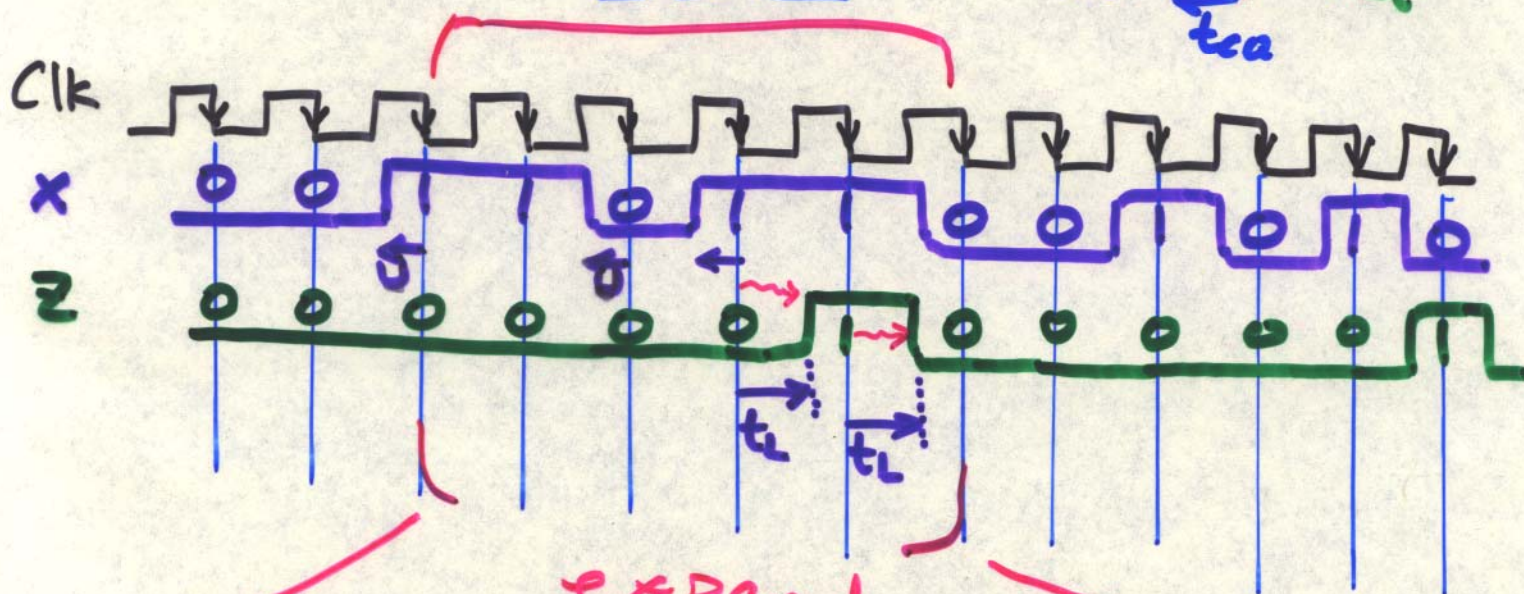
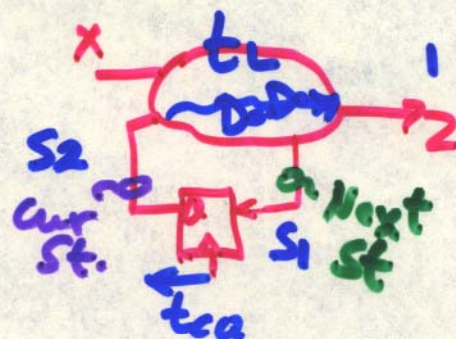
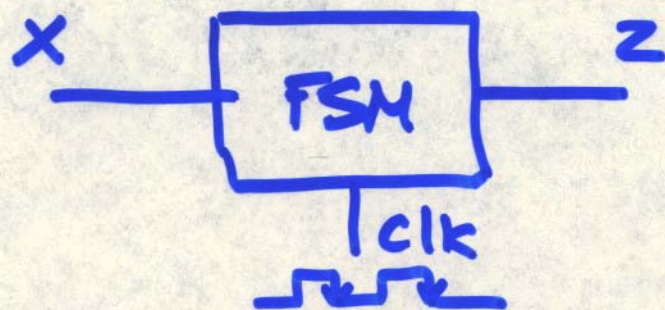
		B			
		0	0	-	0
X	0	0	0	-	0
	1	0	0	-	1

A

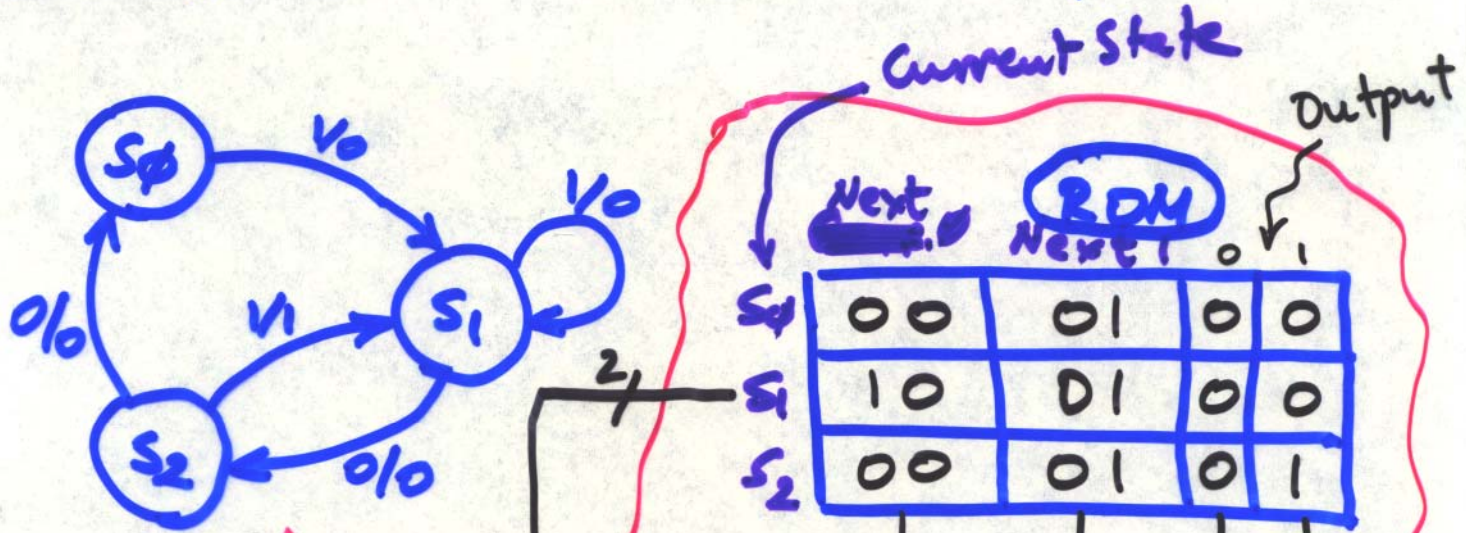
$$Z = X A$$



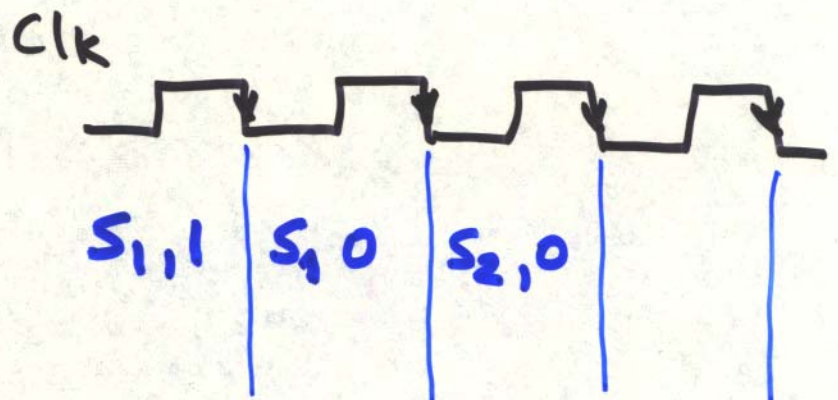
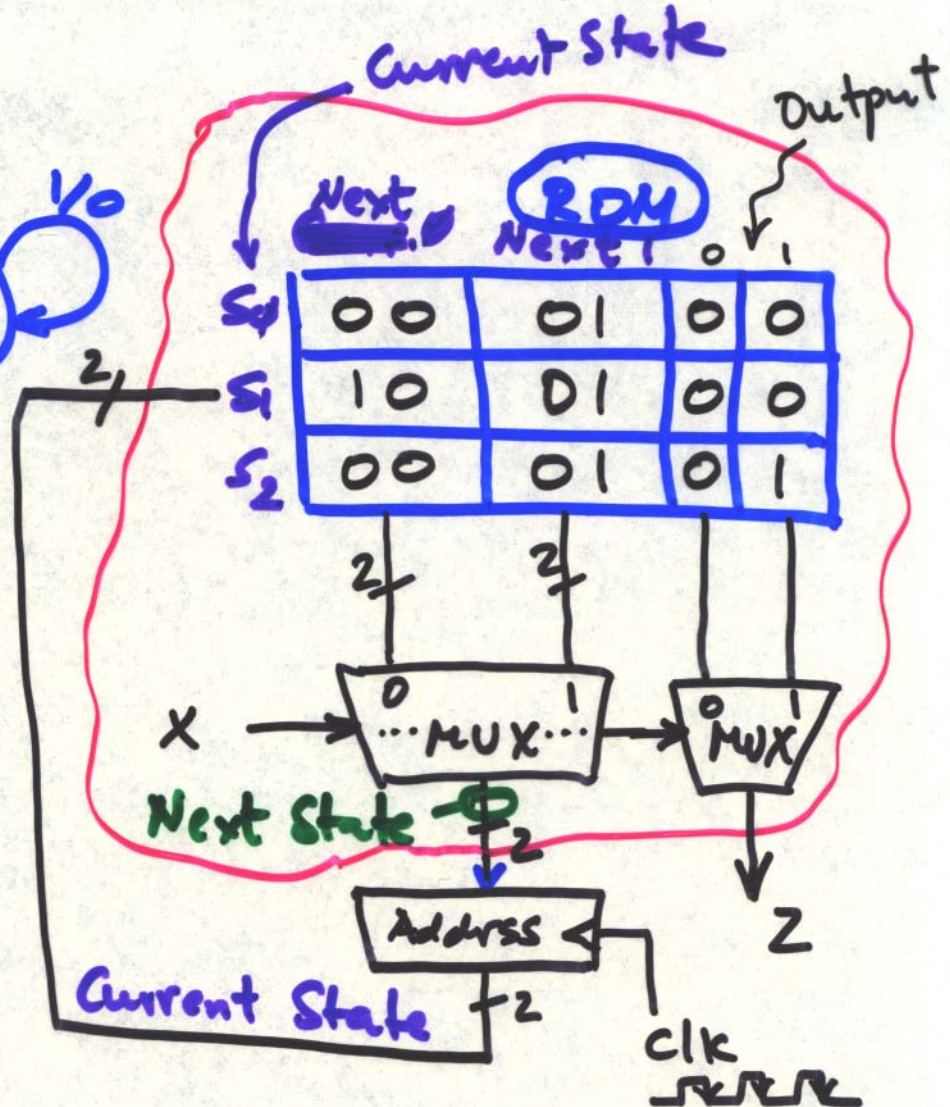
Example: Combinational Lock



Example : FSM Different Implement.

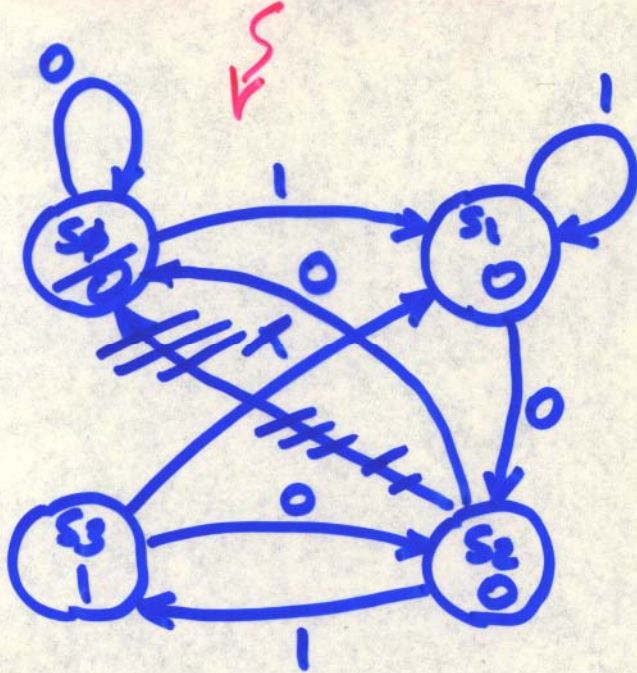


Mealy Machine

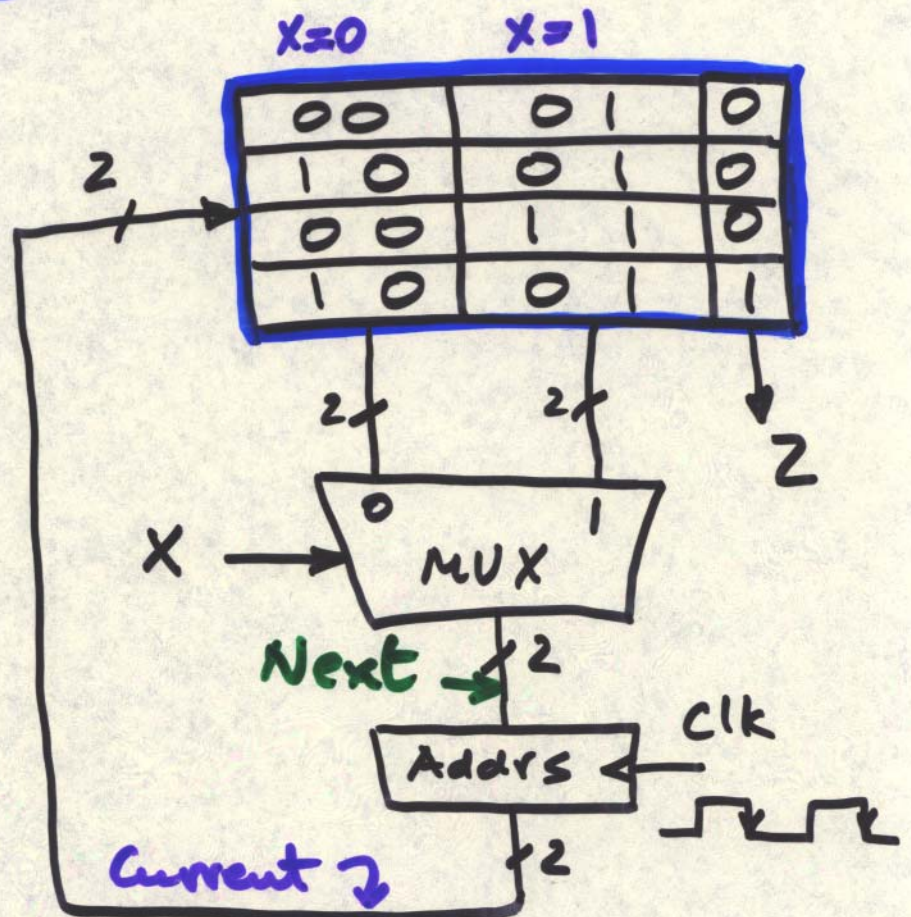


Example: FSM Diff. Implement.

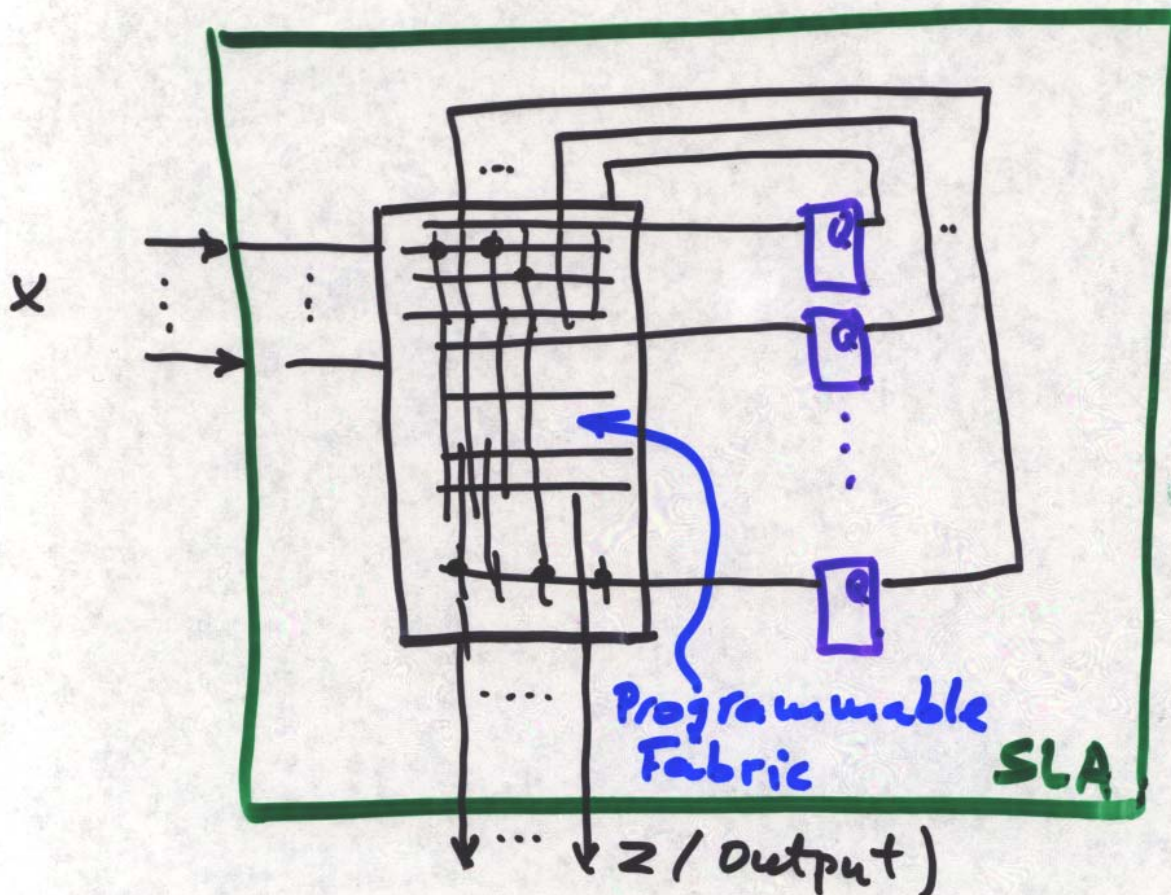
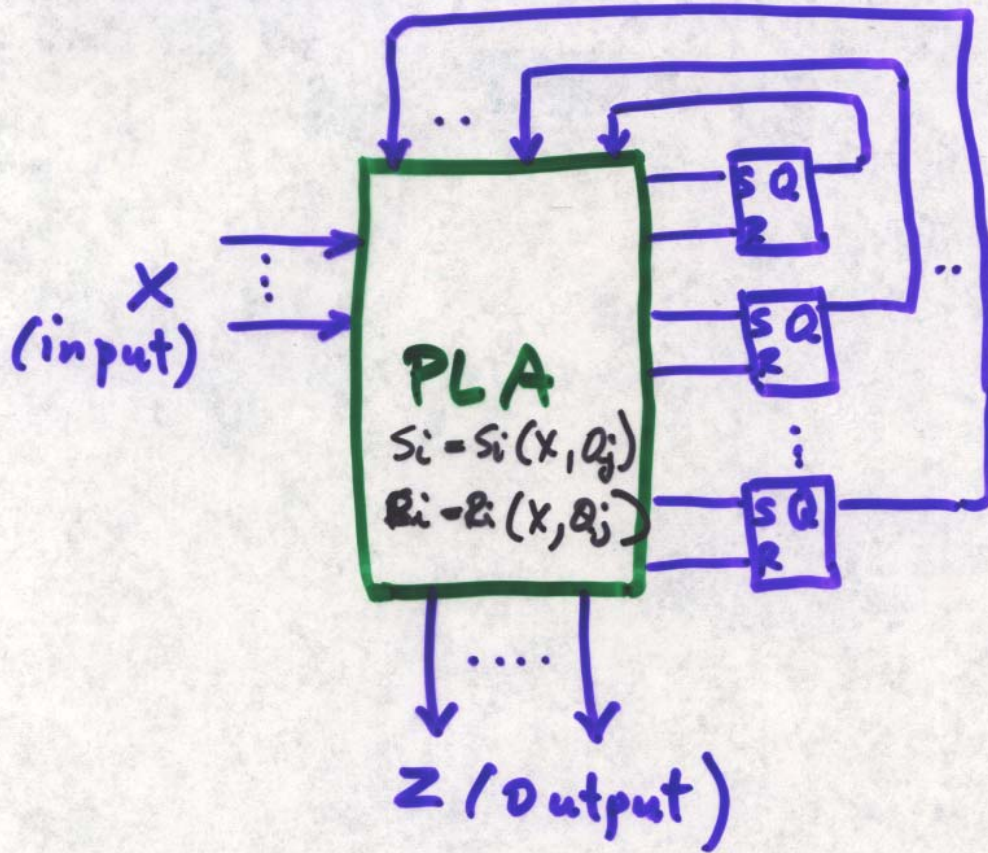
Moore Machine



ROM Impl.



Example: Alternate FSM Impl.



😊 Suhas Patil

FSM :

Ex: Counter, $X = \begin{cases} 0 & \text{up} \\ 1 & \text{down} \end{cases}$

$Y = \begin{matrix} x=0 & & & \\ 00, 01, 10, 00 & & & \\ x=1 & 00, 10, 01, 00 & & \dots \end{matrix}$

$$k=3, N = \lceil \log_2 k \rceil = 2$$

