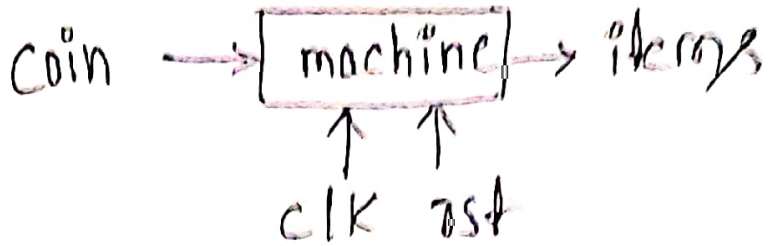
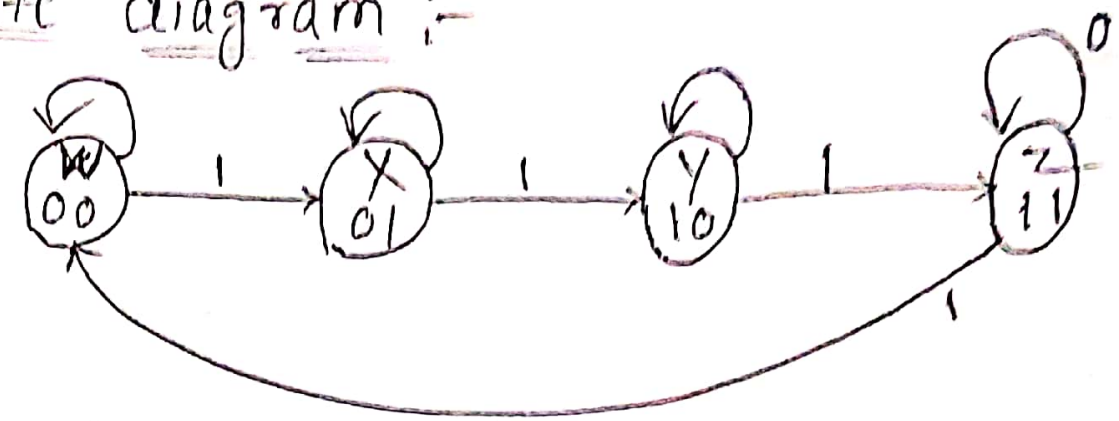
PROJECT

Block diagram :-



State diagram :-



Present state			Next state				Input			
Q_1	Q_0	A	name	Q_1	Q_0	B	J_1	K_1	J_0	K_0
0	0	0	W	0	0	0	0	X	0	X
0	0	1	X	0	1	0	0	X	1	X
0	1	0	X	0	1	0	0	X	X	0
0	1	1	Y	1	0	0	1	X	X	1
1	0	0	Y	1	0	0	X	0	0	X
1	0	1	Z	1	1	0	X	0	1	X
1	1	0	Z	1	1	0	X	0	X	0
1	1	1	W	0	0	1	X	1	X	1

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Explain the functionality of the FSM

Step 1 :-

In first step the machine (vending machine) will show the insert the coin to required.

Step 2 :-

And initializing the coin which is required one or not. then

Step 3 :- Transitions :-

* Insert coin 5 then it will remain same state and also asking additional coins to get.
* Insert coin 10 then it will move to another state and despensing if the required amount reached.
* Insert coin 20 it will move to another state and despensing if the required amount reached.
* Insert coin 50, In this state also remain same as coin 20, this process is repeatedly occurs until we get.

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Step 4 :-

if the dispensing successful, state change given. and if the product not available or any issue occurs, transition back idle.

step 5 :- Back amount

Back amount is given when we give more amount than required one.

~~step 6 :~~