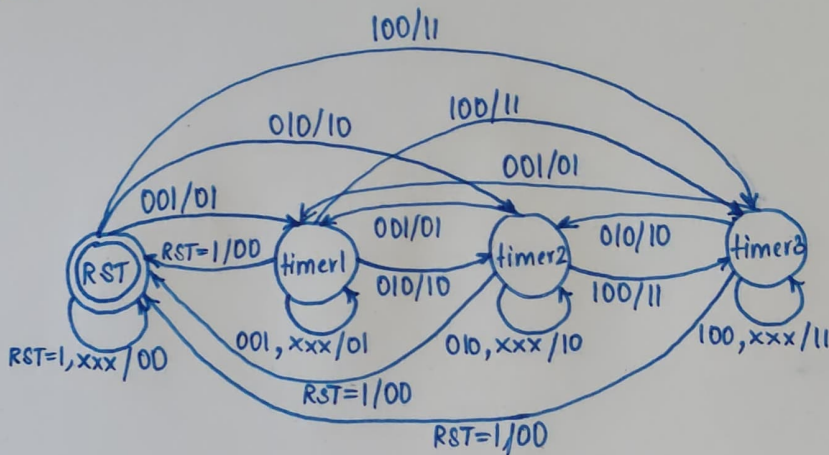


The state table is given below :

Reset	Input	Present_State	Next_State	Output
1	xxx	any state	RST	00
0	001	any state	timer1	01
0	010	any state	timer2	10
0	100	any state	timer3	11
0	xxx	any state	same state	output of that state

State diagram :



- For any input other than the pre-defined ones , the state remains the same
- If input is 001 and RST = 0 , state changes to timer1 and output is 01
- If input is 010 and RST = 0 , state changes to timer2 and output is 10
- If input is 100 and RST = 0 , state changes to timer3 and output is 11
- If RST = 1 , no matter the input , state changes to RST and output is 00
- RST is the default state .

Output :

- If output is 00 , LED 3 will glow steadily
- If output is 01 , LED 0 will glow steadily
- If output is 10 , LED 1 will glow steadily
- If output is 11 , LED 2 will glow steadily .