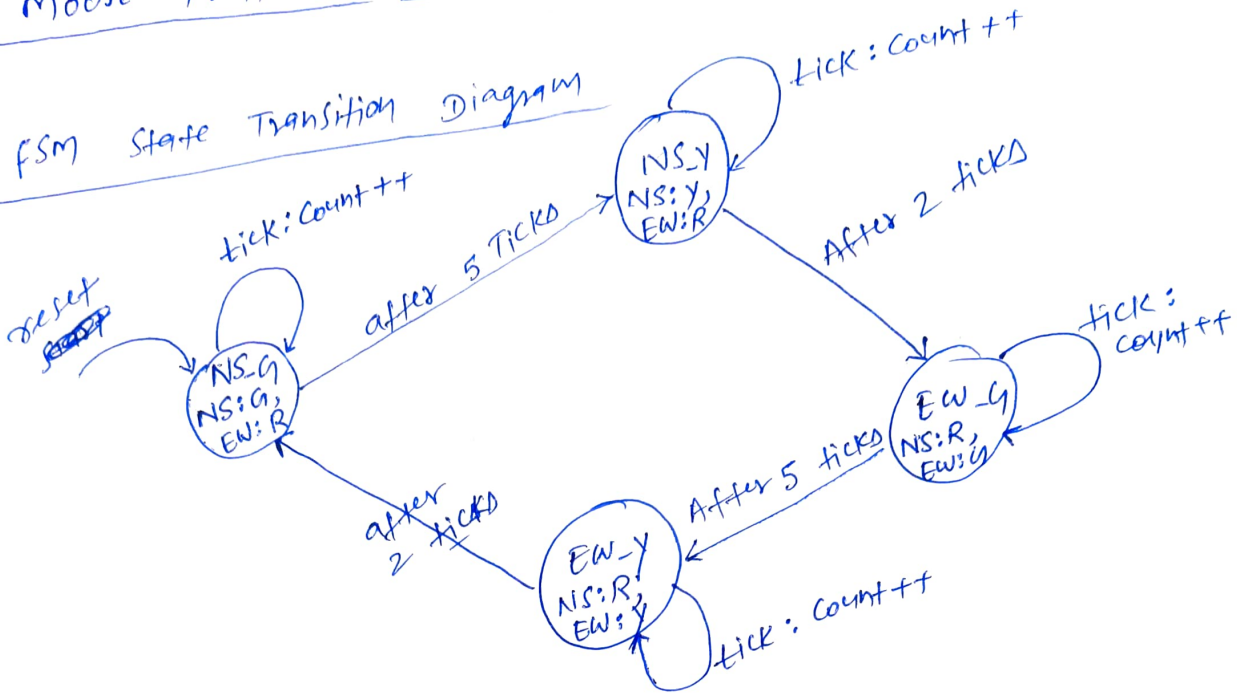


problem 2 - traffic

Moore Traffic light Controller [Tick-driven]

FSM State Transition Diagram



FSM State Transition Table

<u>current-state</u>	<u>input (Tick)</u>	<u>Next state</u>
NS-G	tick [after 5]	NS-Y
NS-Y	tick [After 2]	EW-G
EW-G	tick [After 5]	EW-Y
EW-Y	tick [After 2]	NS-G

Encoding (2-bit)

state

NS-G

NS-Y

EW-G

EW-Y

Encoding

00

01

10

11

FSM Output Table

<u>Current state</u>	<u>Outputs</u>			<u>EW-G</u>	<u>EW-Y</u>	<u>EW-R</u>
	<u>NS-G</u>	<u>NS-Y</u>	<u>NS-R</u>	NS-G	NS-Y	NS-R
<u>NS-G</u>	1	0	0	0	0	1
<u>NS-Y</u>	0	1	0	0	0	1
<u>EW-G</u>	0	0	1	1	0	0
<u>EW-Y</u>	0	0	1	0	1	0