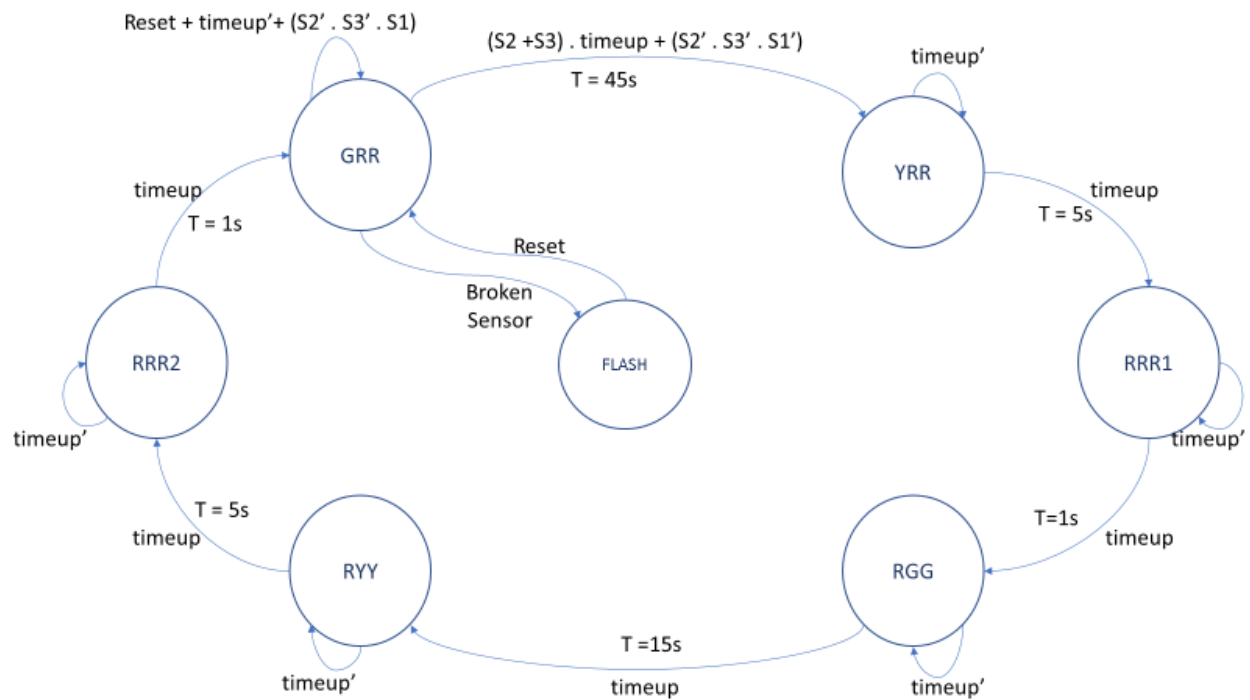


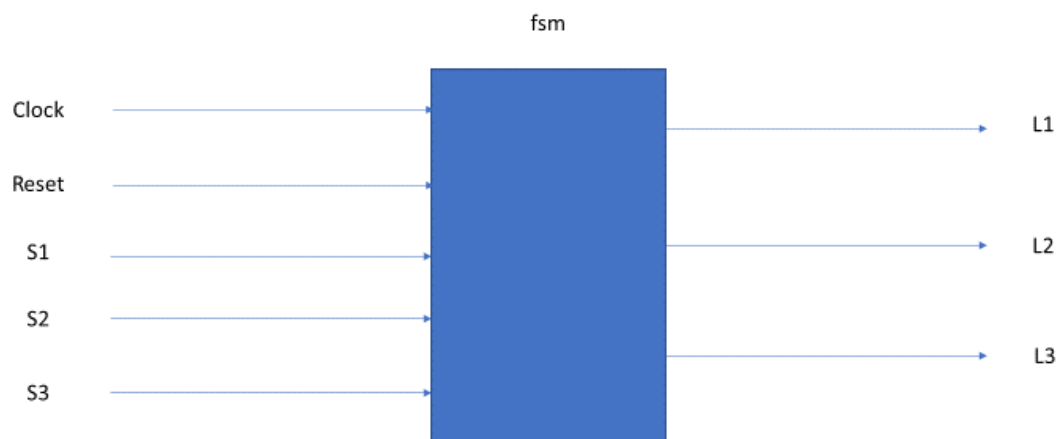
Design traffic lights FSM

State	South-North	East-West	West-East	Delay (s)
1	Green (01)	Red (11)	Red (11)	45 + Extra time if only S1 detected
2	Yellow (10)	Red (11)	Red (11)	5
3	Red (11)	Red (11)	Red (11)	1
4	Red (11)	Green (01)	Green (01)	15
5	Red (11)	Yellow (10)	Yellow (10)	5
0	Red (11)	Red (11)	Red (11)	1
6	Flashing (00)	Flashing (00)	Flashing (00)	It will stay until the sensor will be fixed

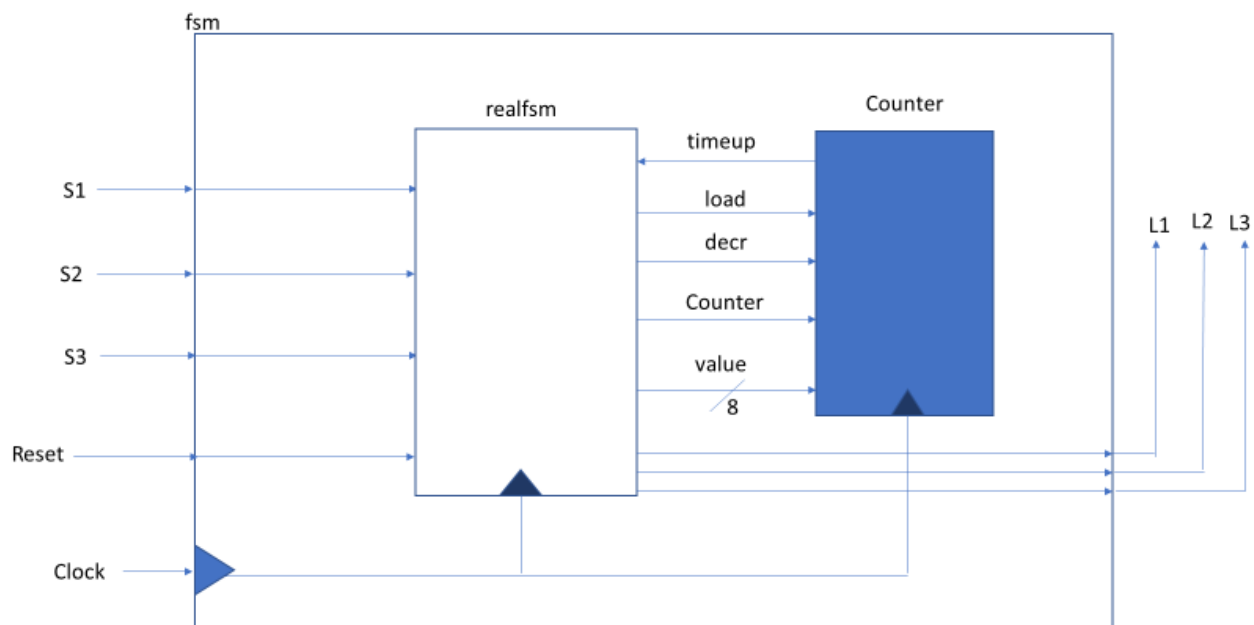
state/output table



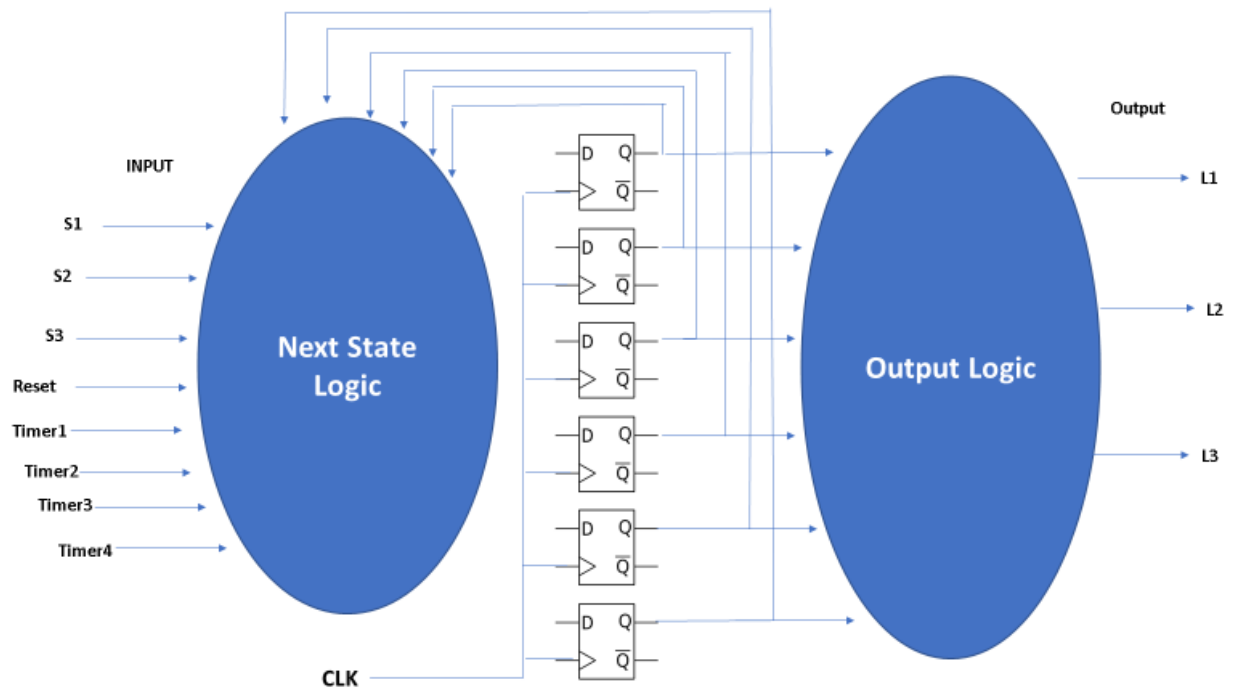
state transition diagram



Simplified Blocking diagram



Blocking diagram 1



Blocking diagram 2