***FSM used for lift block***:

Reset =1

S9

S8

S7

S0

S6

S4

S5

S2

S1

S3

Req check else

check

floor req

if met if not met if not met if met

opens door opens door

+1

decrement of floor -1

+1

decrement of floor -1

idle idle

closes door closes door

S0 : starting from the top floor i.e. floor 5 and then checks the request

S3 : approaching floor’s req to check if had req then opens the through S1 state otherwise bypass it S2 state which is closed door state

S8 : ideal state in downward checking

S9 : ideal state in upward checking