Parking lot occupancy Counter

State-0

AB = 00   AB = 10   AB = 00   AB = 01   AB = 00

State-1   State-5

AB = 11   AB = 11

State-2   State-6

AB = 01   AB = 10

State-3   State-7

AB = 00   AB = 00

State-4
ENTER_CAR =1

State-8
EXIT_CAR =1

Ms_tick = 1   AB = 00   Ms_tick = 1

CAR

ENTERING

A = FRONT SENSOR ('1' when blocked)

B = BACK SENSOR ('1' when blocked)