```
request!
                                                  carLight[location]!=GREEN && queueIndex[location]!=QUEUE SIZE && location != E
                                                  &&genNumber!=MAX GEN NUMBER[location]
                                                                         queue[location][queueIndex[location]]=R,
                                                                         queueIndex[location]++,
                                                                         genNumber++
                                         request!
    carLight[location]!=GREEN && queueIndex[location]!=QUEUE SIZE && location 1/2 $
    &&genNumber!=MAX GEN NUMBER[location]
                                    queue[location][queueIndex[location]]=U,
                                    queueIndex[location]++,
                                    genNumber++
                                                                                                    carLightGreen?
                                                                                                                      LightGreen
                                                                                                                                                CarCrossing
                                                                                       AcceptCar
                                                                                                    crossingTime=0
                                                                                                                              not_waiting!
                                                                                                                                                     crossingTime<=CAR CROSSING TIME
                                         request!
carLight[location]!=GREEN && queueIndex[location]!=QUEUE SIZE && location\!= W
&&genNumber!=MAX GEN NUMBER[location]
                                queue[location][queueIndex[location]]=L,
                                queueIndex[location]++,
                                                                                                                        carLight[location]==GREEN &&
                                genNumber++
                                                                                                                        queueIndex[location]!=0
                                                                                      carLight[location]!=GREEN ||
                                                                                                                           not waiting!
                                                                                      queueIndex[location]==0
                                                                                                                         crossingTime=0
                                                                                                                                        crossingTime>=CAR CROSSING TIME
                                                                                                                                         release!
                                                                                                                                         queue[location][0]=queue[location][1],
                                                                                                                                         queueIndex[location]--
                                                                                                       TakeDecision
```