TÚNEL SOLUCIÓN BÁSICA

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TUNNEL SOLUCION BASICA: demosmación

cas_notn:= cos_noth +1

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Alejandro Miranda Carres
     car: Client
                                                         Hector footriquez Peco
         Loop
                                                         Marta Impuesso Rico
            direction: = roudom (NORTH, SOUTH)
            monitor, wants_ener (direction)
            monitor. Icayes_tunnel (airection)
      monitor:
        cas_north: Int 4 care yordo hacra el note en el l'inel.
        cars_south: Int 1, # coones yendo hava el sur en el lúnel.
        Someone_north: condition
        Someone_south: condition
      INV: cos_rath > 0 × cos_south > 0 × (7 (cos_rath) 0 × cos_south > d)}
      def waus_ eat (direction):
         HINVE
         If direction = = NORTH
             someone - South . wait (cors_ south == 0)
            TIMY N COS_ SOUTH == OF
            cars_noth := cas_north +1
            TIMIT
        else: 4 (direction == South)
            Someone_north.upit (cas_north ==0)
            - INVA COS_ NOTO == 0 +
            cars_South:=cos_South+1
           + INV+
       TINU F
• INV ∧ cars_south = = 0 (=> cas_north ≥0 ∧ cas_south = = 0 ∧
 N (7 (cas-north>0 N cas-south >0) (=) cas-north ≥0 N cos-south ==0 =)
                                                         Los primeros dos térmilhos de la
                                                         caujunch se signen micidimente
                    fauso
                                                            durino poque con south ==0
                     acto
 => cas_nath =1 1 cas_south == 0 => cas_noth >0 1 cas_south == 0 => INV V
```

```
avalogo al omo
  ● INV N CORS_north == 0 (=> cors_rorth == 0 N cors_south ≥0 => cors_rorth == 0 N
  1 cars_south ≥ 1 =) cars_noth = =0 n cars_south >0 =) INVV > cars_south = aas_south + 4
                                            * pero con cors-north == 0
       def leaves tunnel (direction):
      + INV A ((cas_north >0 A cors_south == 0 A direction == NOATH) ()
       ⊕ C cars_south > 1 cas_nath == 6 1 direction == South) +
            if direction == NOATH:
               I INV & cars_rarch > 0 x cars_south == 0 t
               cas -north := cars -north -1
               Someone_ north. signal ()
               4 INVI+
           PISE: (direction = = south)
              + INV n cars_south > on cars_north == o +
              cors_soutn:=cors_soutn-1
              someone_south, signal ()
              + INV +
        +INV+
• INV N cas_nath >0 N cas_south ==0 (=) cas_nath ≥0 N cas_south ≥0 N
 N (7 (cors_storth) 0 N cors_south)) N cors_north >0 n cors_south ==0 (=)
 (=> cars_north >0 1 cars_south == 0 => cars_north +1>0 1 cars_south == 0 (=>
                                   cors_nath := cos_north - 4
 (=) COS_NOTEN 20 1 COS_SOUTH ==0 =) INV V
                                            langido or omo coso
• INV A cars_south > 0 A cars_north = =0 ←) cars_south >0 A cars_north ==0 →)
=> cars_south +1> 0 1 cars_north == 0 (=) cars_north 20 1005_south == 0 => INV /
                                                               * pero ears-north == 0
cors_scutn: = cos_soutn-1
```