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VERSIÓN 1 : skel_uno.py

~~(INV: access = 1.)~~ (Corrección: $0 \leq access \leq 1$)

```
Monitor (NCARS):
    access : int
    access = 1  # no hay coches en el túnel

Car i:
    car created
    car wants to enter
    wants_enter()
    car enters the tunnel
    car leaving the tunnel
    leaves_tunnel()
    car out of the tunnel

wants_enter():
    §INV§
    free_access.waitfor(access==1)
    access = 0

leaves_tunnel():
    §INV§
    access = 1
    free_access.signal()
```

VERSIÓN 2 skel_multiple.py

~~(INV: ncar_n = 0 ∨ ncar_s = 0)~~ Corrección INV: $(ncar\_n \geq 0 \rightarrow ncar\_s \leq 0) \wedge (ncar\_n \leq 0 \rightarrow ncar\_s \geq 0)$

```
Monitor (NCARS):
    access, ncar_n, ncar_s : int
    access = 1
    ncar_n = 0
    ncar_s = 0
    d = NORTH

Car i:
    car created
    car wants to enter
    wants_enter(direction)
    car enters the tunnel
    car leaving the tunnel
    leaves_tunnel(direction)
    car out of the tunnel

wants_enter(direction):
    §INV§
    set_current_drection(direction)
    free_access.waitfor(access == 1 ∨
      ncar_s > 0 ∨ ncar_n > 0)
    if d == NORTH
      ncar_n += 1
    else
      ncar_s += 1
    access = 0

leaves_tunnel(direction):
    if d == NORTH
      ncar_n -= 1
    else
      ncar_s -= 1
    if ncar_n == 0 ∧ ncar_s == 0
      access = 1
    free_access.signal()
```