

Toll gate opener

Requirements

- R1** System initialize its communication with server by giving necessary credentials
- R2** If System receive acknowledgment it will continue the work, if not, it ends the execution
- R3** System check to server every 5 seconds to check whether there is a new open gate request or not.
- R4** If there exists open gate request, then the gate opens.
- R5** The gate closed after 20 seconds and wait check the server again.

Components

C1 APICommunicator

This component do communication with server

Behaviors:

[init]

This behavior inits all the required behavior to communicate with server such as credentials.

???waitingresponse???

A guard to mark whether a response is received or not.

[requestpost]

Send the data to the server

?acknowledged?

[requestget]

Send a get request

[setcheckopengaterequest]

Set parameter to check open gate

[processresponse]

Processing response, whether there is open gate request or not, or whether the request failed or not.

?shouldopen?

Selection to check whether it should open or not.

?not(shouldopen)?

Selection whether the door should not be open.

C2 Gate



Gate that used to be open and close.

Behaviors:

[OPEN]

The open condition of the Gate

[CLOSE]

The close condition of the gate

States:

OPEN

The condition when the gate opens

CLOSE

The condition when the gate closed.

C3 OpenGateRequestTimer

The timer to make open gate request every 5 seconds.

Attributes:

duration Int

null

Behaviors:

[START]

Start the timer

???timeout???

Check whether the timeout is true

States:

START

Indicating that the timer is started

TIMEOUT

The condition that the timer already timeout

C4 CloseGateTimer

Timer to close the gate after it is opened. The waiting time is 20 seconds.

Attributes:

duration Int

null

Behaviors:

[START]

Start the timer

???timeout???

Check whether the timeout is true

States:

START

Indicating that the timer is started

TIMEOUT

The condition that the timer already timeout

CTOLLROAD TollRoad

The view of the toll road.

