

-VARIABLE INFO-

act - VAR - {'W', 'E', 'N', 'S', 'X'}

new - VAR - BOOLEAN

x_d - VAR - [0, 19]

y_d - VAR - [0, 19]

x_g - VAR - [0, 19]

y_g - VAR - [0, 19]

-INITIAL VALUES-

act ∈ {'X'}

new ∈ {⊥}

x_d ∈ {0}

y_d ∈ {0}

x_g ∈ {*x_d*}

y_g ∈ {*y_d*}

-ENVIRONMENT UPDATES-

x_g ∈ ([0, 19]

if *new* else

({*x_g*}))

y_g ∈ ([0, 19]

if *new* else

({*y_g*}))

x_d ∈ ({*max*(0, (*x_d* - 1)))}

if (*act* = 'W') else

({*min*(19, (*x_d* + 1)))}

if (*act* = 'E') else

({*x_d*}))

y_d ∈ ({*max*(0, (*y_d* - 1)))}

if (*act* = 'S') else

({*min*(19, (*y_d* + 1)))}

if (*act* = 'N') else

({*y_d*}))

