

-VARIABLE INFO-

act - VAR - {'We', 'Ea', 'No', 'So', 'XX'}
new - VAR - BOOLEAN
x_d - VAR - [0, 9]
y_d - VAR - [0, 9]
x_g - VAR - [0, 9]
y_g - VAR - [0, 9]
net - NEURAL - {'We', 'Ea', 'No', 'So', 'XX'}
obstacles - array 44 - DEFINE - INT
obstacle_sizes - array 22 - DEFINE - INT

-INITIAL VALUES-

act $\in \{'XX'\}$
new $\in \{\perp\}$
x_d $\in \{0\}$
y_d $\in \{0\}$
x_g $\in \{x_d\}$
y_g $\in \{y_d\}$
net -INPUTS- (*x_d*, *y_d*, *x_g*, *y_g*)
temp := [9, 2, 9, 0, 8, 9, 8, 0,
7, 6, 6, 9, 6, 8, 6, 7, 6, 4,
6, 2, 6, 1, 5, 5, 4, 9, 4, 5,
3, 9, 3, 8, 3, 3, 3, 2, 2, 5,
0, 8, 0, 4, 0, 2]
for index in len(*temp*):
 obstacles[index] := *temp*[index]
temp := [0, 0, 0, 0, 0, 0, 0, 0,
1, 0, 1, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0]
for index in len(*temp*):
 obstacle_sizes[index] := *temp*[index]

-ENVIRONMENT UPDATES-

x_g $\in ([0, 9]$
 if *new* else
 {*x_g*}
y_g $\in ([0, 9]$
 if *new* else
 {*y_g*}
x_d $\in (\{max(0, (x_d - 1))\}$
 if (*act* = 'We') else
 ($\{min(9, (x_d + 1))\}$)
 if (*act* = 'Ea') else
 {*x_d*})
y_d $\in (\{max(0, (y_d - 1))\}$
 if (*act* = 'So') else
 ($\{min(9, (y_d + 1))\}$)
 if (*act* = 'No') else
 {*y_d*})

