

-INITIAL VALUES-

```
act ∈ {'XX'}
new ∈ {⊥}
x_d ∈ {0}
y_d ∈ {0}
x_g ∈ {x_d}
y_g ∈ {y_d}
NN(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, 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]
```

-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
```

-ENVIRONMENT UPDATES-

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

