UNIVERSIDAD NACIONAL DE INGENIERIA

FACULTAD DE CIENCIAS

INTELIGENCIA ARTIFICIAL

Tarea02: Robot móvil

Carlos Alberto Espinoza Mansilla | Inteligencia Artificial | 25/06/2019

PROFESOR:

ANTONIO MORAN

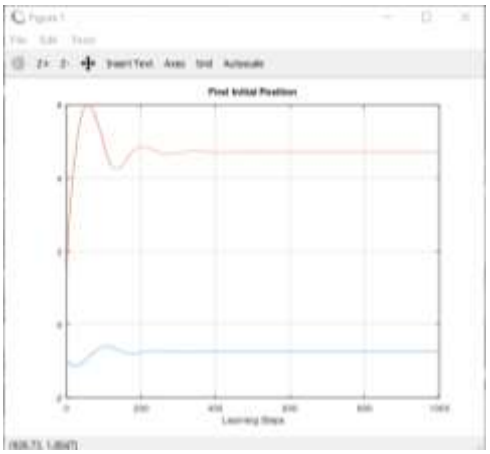
Entrenamiento:

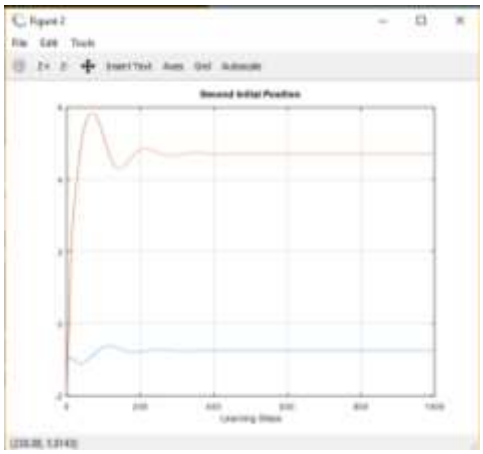
- Para x_ini = -1 -1 1 1

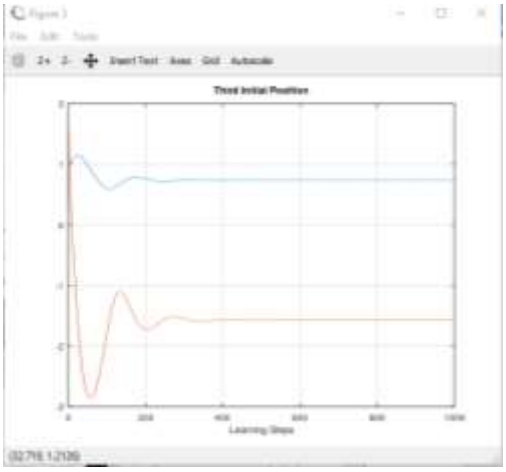
Input learning rate for v, w: 0.1

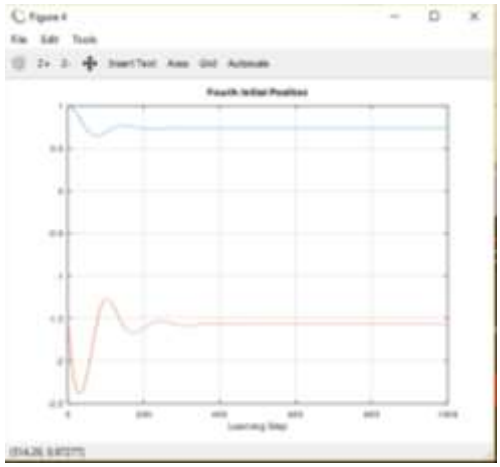
Input learning rate for sigmoid slope a: 0

Input the maximum number of steps: 450









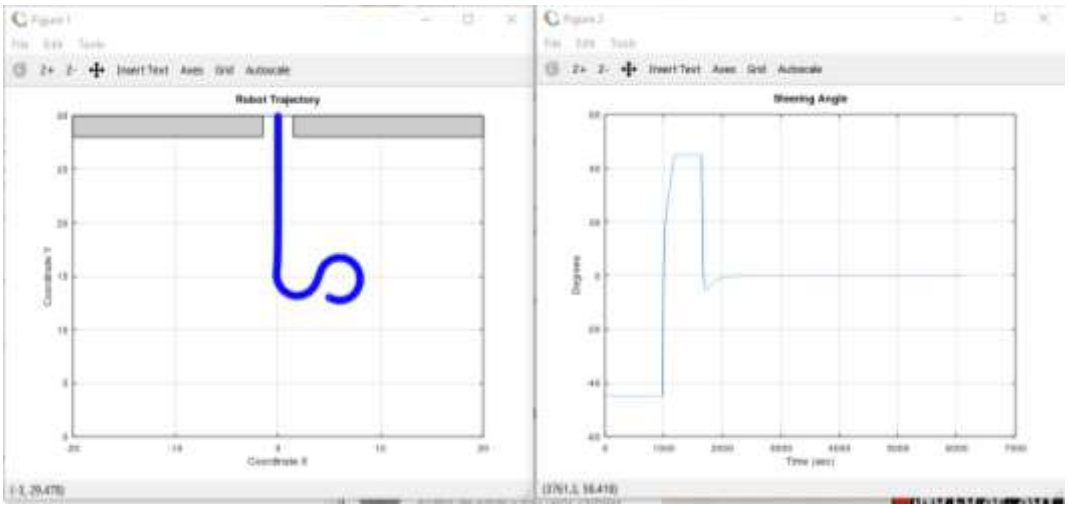
Validando:

Initial coordinate x [-12 12]: 5

Initial coordinate y [0 20] : 13

Initial inclination phi (degrees -90<>270): -30

Desired x coordinate: 0



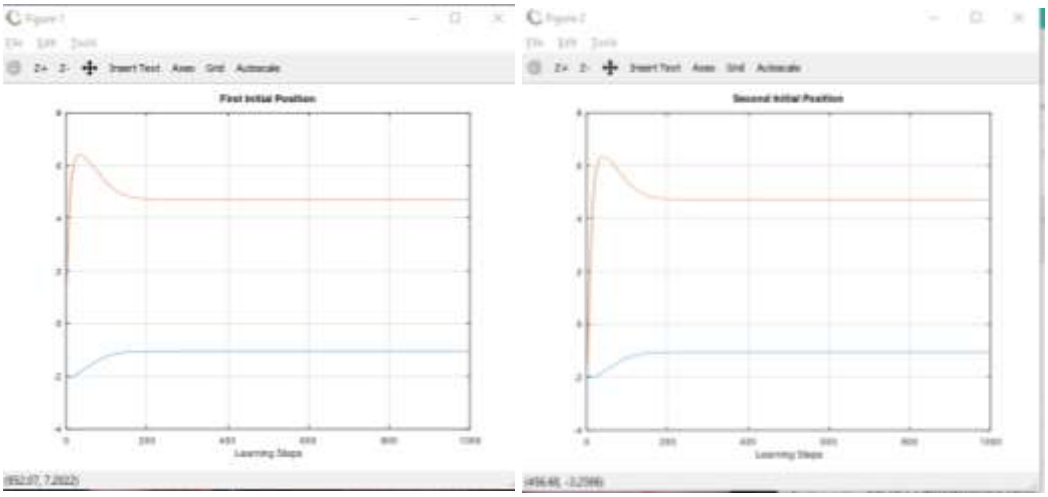
Entrenamiento:

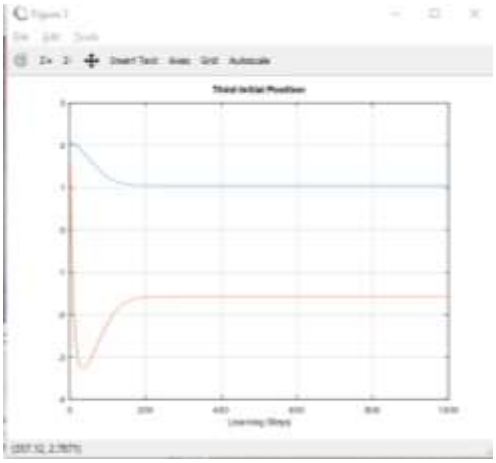
- Para x_ini = -2 -2 2 2

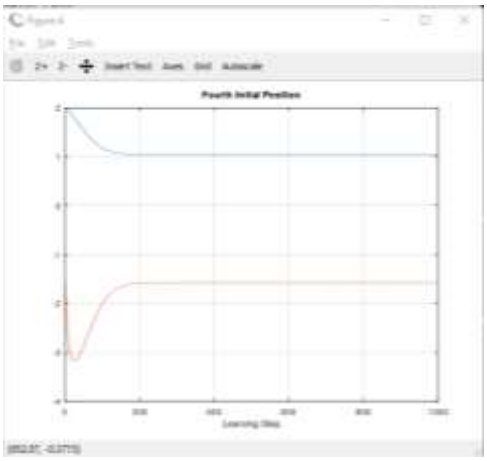
Input learning rate for v, w: 0.1

Input learning rate for sigmoid slope a: 0

Input the maximum number of steps: 450







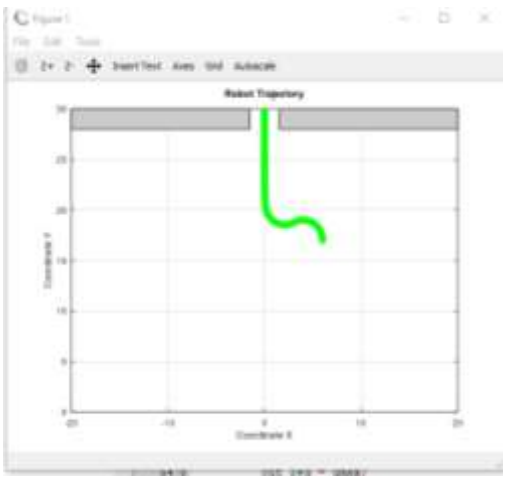
Validando:

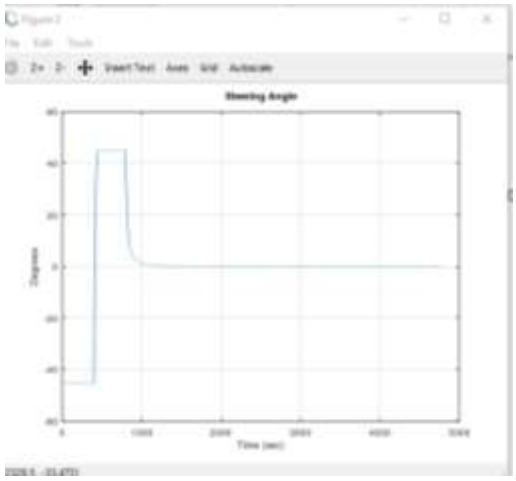
Initial coordinate x [-12 12]: 6

Initial coordinate y [0 20] : 17

Initial inclination phi (degrees -90<>270): 90

Desired x coordinate: 0





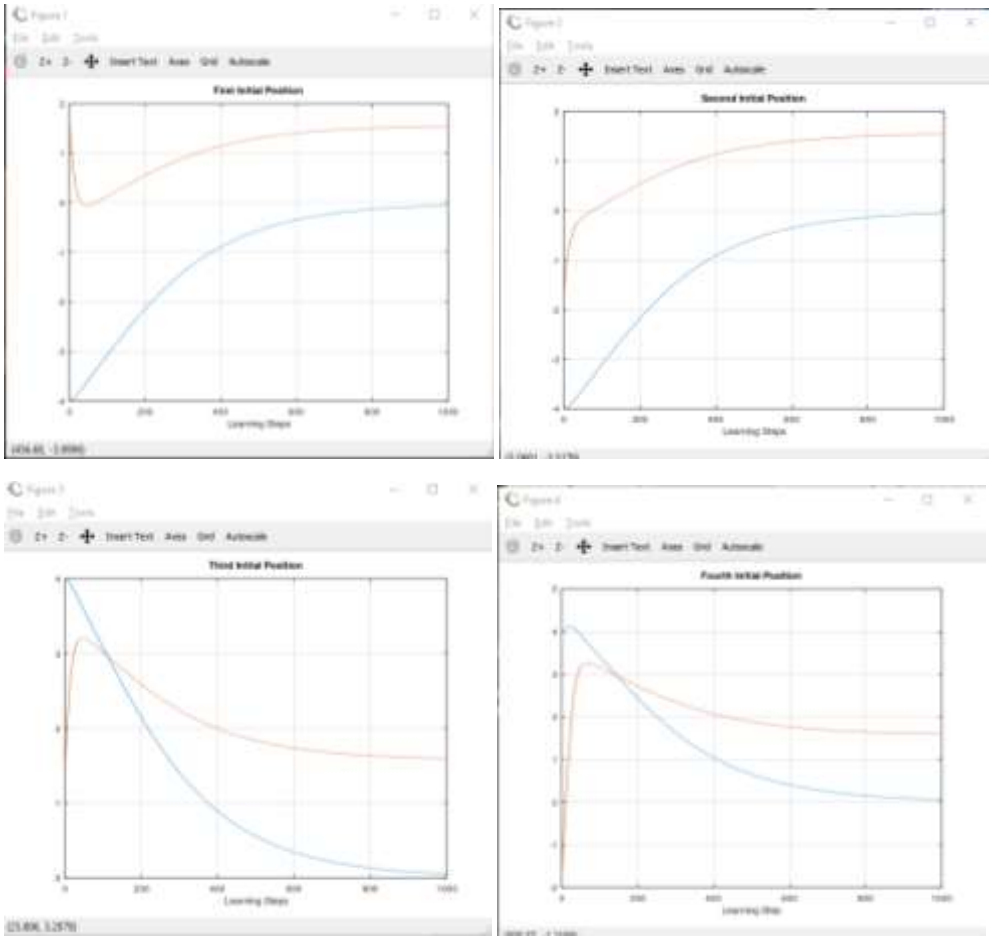
Entrenamiento:

- Para x_ini = -4 -4 4 4

Input learning rate for v, w: 0.1

Input learning rate for sigmoid slope a: 0

Input the maximum number of steps: 450



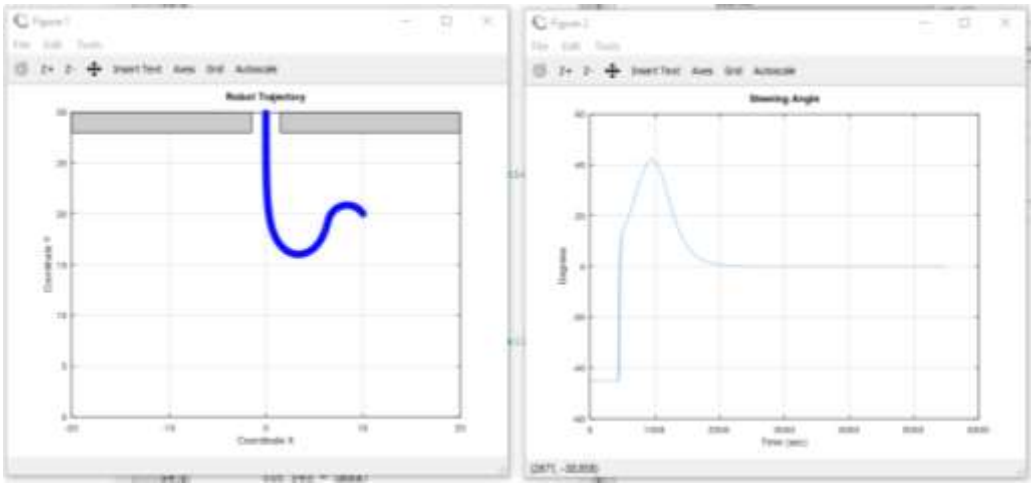
Validando:

Initial coordinate x [-12 12]: 6

Initial coordinate y [0 20] : 17

Initial inclination phi (degrees -90<>270): 150

Desired x coordinate: 0



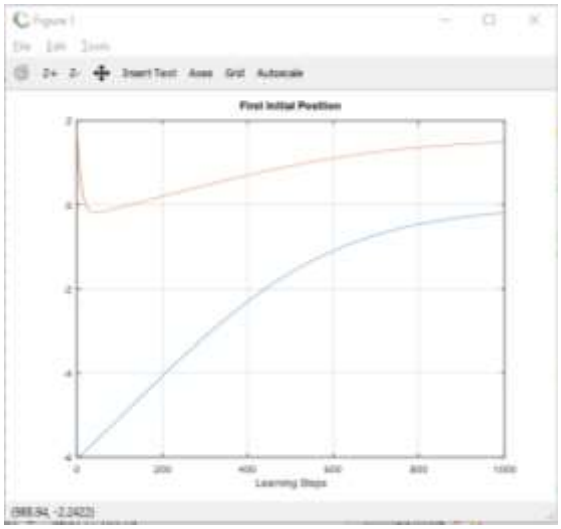
Entrenamiento:

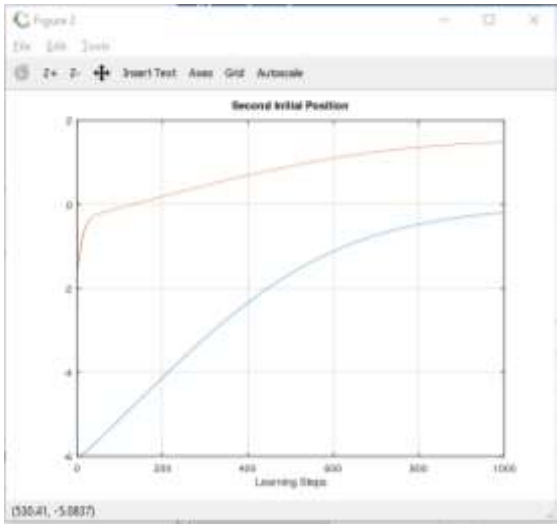
- Para x_ini = -6 -6 6 6

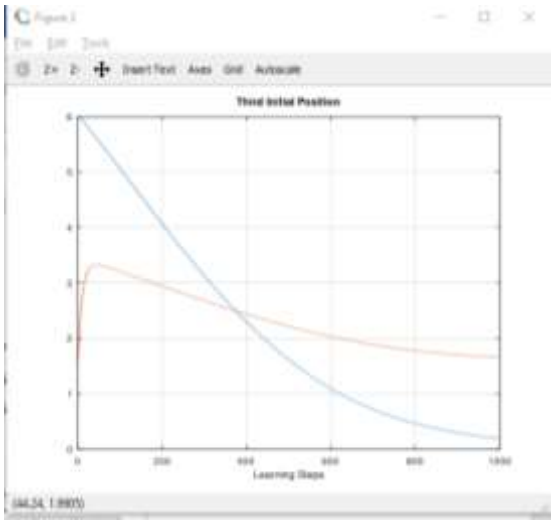
Input learning rate for v, w: 0.1

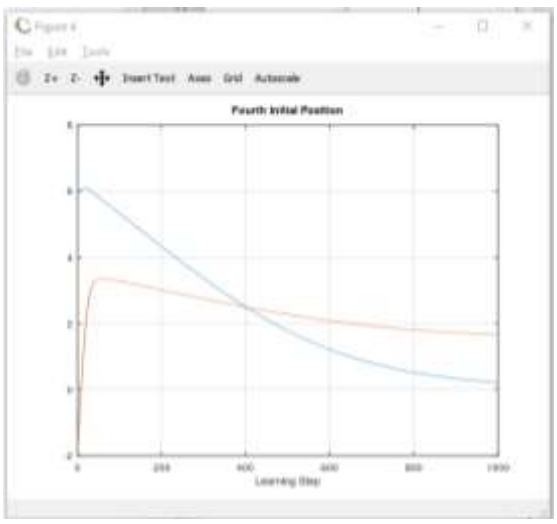
Input learning rate for sigmoid slope a: 0

Input the maximum number of steps: 450









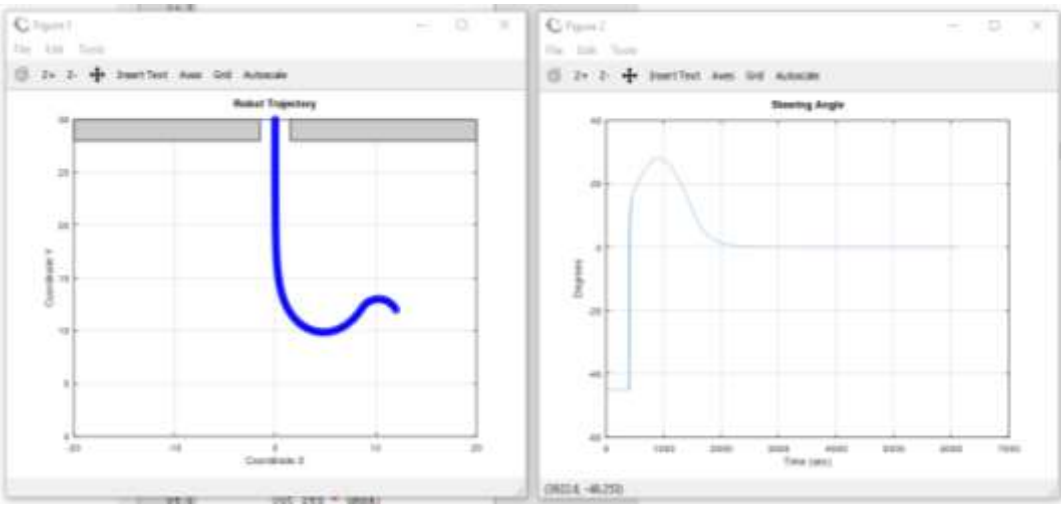
Validando:

Initial coordinate x [-12 12]: 12

Initial coordinate y [0 20] : 12

Initial inclination phi (degrees -90<>270): 120

Desired x coordinate: 0



Modificando el Angulo de la trayectoria:

Dentro del archivo de validación agregamos dentro del while:

```
xast = (x(1,1) + x(2,1)*sqrt(3))/4;
```

El resultado es:

Initial coordinate x [-10 10] : 5

Initial coordinate y [0 20] : 8

Initial inclination phi (degrees -90<>270) : 160

Desired x coordinate: 0