

# TIC TAC TOE Game

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## PEAS :

### Performance measure:

- the agent and human can play the game.
- the agent and the human can win the game .
- the number of loses and wins.

### Environment:

- Board or Matrix 3x3.
- OR the laptop or computer.

### Actuators:

- human .
- the click on the button on the computer.
- the opponent.

# Sensors :

- the moves in the board (up , down , left , right).

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# ODESA/D:

## .Observability:

- Fully observable.

## .Deterministic:

- Strategic.

## .Episodic:

- Sequential.

.Static:

-Static.

.Agent:

-multi\_agent.

.Discrete:

-Discrete.

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Agent type is goal based  
reflex agent

# Problem Formulation

## .Initial State:

- An Empty Board.

## .Successor Function:

- moving X's or O's (up, down ,left,right)  
In the empty board.

## . Goal Test :

- the put their marks in the board to make a  
Continuous line of the three positions  
diagonally  
Or vertically Or horizontally.

## .Path Cost:

-number of moves ( each move cost 1 ).

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