**Tic tac toe**

**Problem:**

It is a game that contain two shapes and to win one of two shapes is similar horzintally ,vertically,

Diagonally.

**Results:**

At the end one of two players will win or draw.

**Hypothesis:**

How to solve it manually or use artificial intelligence algorithms.

**Agent design (PEAS):**

|  |  |  |  |
| --- | --- | --- | --- |
| **Performance measure** | **Environment** | **Actuators** | **Sensors** |
| fast , agent always make the best move, profit | board, player and computer | Screen display | movement ofthe opponent , mouse click. |

**Environment properties (ODESA+D):**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Observability** | **Deterministic** | **Episode** | **Static** | **Agent** | **Discrete** |
| Fully observable | strategic | sequential | static | Multi-agent  (competitive) | discrete |

**Agent type:**

Goal-based reflex agents

**Problem formulation:**

**States:** two shapes will put in the nine square.

**Intial state:** dashboard is empty.

**Successor function:** will put in any empty square.

**Goal test:** one of two shapes is similar horzintally ,vertically,

Diagonally.

**Path cost:** 1 per move.

**Names of team**

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