Peas for Tic Tac Teo

PEAS Table 1 for Cyber Tic Tac Toe Agent
Assumptions to draw the board's boundaries for my agent:
Board is represented in the computer as index of board: "0, 1, 2, 3, 4, 5, 6, 7, 8"
Agent
Performance Measure
Environment
Actuators
Sensors
Agent could be "X" or "O"
• The agent always makes valid moves
• Agent can play the
game
• The number of
losses: draws: wins
• The tic tac toe board
• Python program
• The laptop/ computer
• Human
• The opponent
• The ENTER
button on the computer
• The opponent's movement
• The codes
PEAS Table 2 for Physical Tic Tac Toe Agent
Assumptions to draw boundaries for my agent:
Board is represented in the physical board as shown below:
012 345 678
Agent
Performance Measure
Environment
Actuators
Sensors
The agent is always playing as"X" and human is always playing as "O"
• The agent can play the game
• The agent can
win the game or at least tie/draw
• The tic tac toe white
board/paper
• Harry the Plotter
• Raspberry Pi
• The laptop/
computer
• Human
• The pen
attached on
the plotter
• The ENTER

button on the computer
• The camera on top of the board.
• Human’s movement/drawing

Compare and contrast the differences

As mentioned on the PEAS tables previously, we can see some differences between the Tic Tac Toe Agent in cyber and physical form.

Start with the board, in cyber Tic Tac Toe, the board was listed in index form while the physical Tic Tac Toe the board is drawn in 9 squares (3x3 grid). In cyber Tic Tac Toe, you don’t know which piece you’re playing, it could be “X” or “O”, but in physical Tic Tac Toe, your agent is always playing as “X” and make the first move and you as the human will always play as “O”. To measure the agent performance, you use similar measurements as per the PEAS table, with the difference in the number of losses: draws: wins which is displayed on the cyber Tic Tac Toe but not on the physical one. For the environment, cyber Tic Tac toe use the virtual board in index form not the actual board/paper as the physical Tic Tac Toe. Also, the physical Tic Tac Toe used the connection to Raspberry Pi and Harry the plotter machines on top of the laptop/computer, while the cyber only used the phyton program within the laptop/computer. For actuators, I listed human and the ENTER button as their common actuators, while the physical has the pen which is attached on the plotter as one of the actuators and the cyber has the computer-generated opponent as the actuator. Lastly the sensors, the cyber Tic Tac Toe has the opponent’s movement and the codes as the sensors while the physical Tic Tac Toe has the camera on top of the board which can monitor your drawing and movement on the board.