MecClearen Entry Guidelines

Entry guidelines for Computer Games:

Note: This program is a simulation.

Your program must demonstrate and integrate scientific content and your understanding of this content.

This program demonstrates and uses the science of Artificial Neural Networks and and Deep Q Learning and shows my understanding of this as this content is a major part of the program's code.

Is there some variety in the game? Are the instructions clear? Is your work well organised?

There is some variety in the simulation as the user can use their own methods to train the AI robot.

There will always be different results for different methods the user uses.

The instructions are shown at the start, giving a brief explanation on what the user needs to do. The controls are very simple and quite intuitive.

To show organisation of the code, the project is split into three main files, the 'ocean', the AI, and the Kivy UIs (The shape and colour of the robot, and its sensors).

There must be a level of interaction for the user.

There is interaction in this program as the user can draw their own obstacles and they have to train the robot themselves. They can also press on the buttons for more options, and play around with the slider settings.

Does your computer program incorporate good use of graphics and text?

There are two separate windows for graphics and text. The program incorporates text to show the user messages (such as the current score, the introduction, etc.), and the program incorporates graphics to show the MecClearen robot and its obstacles.

The program script or language may be varied including HTML, VB. Net, Scratch, Game Maker, Unity, Python, etc. NOTE: Interaction, input and reaction is required.

This program mainly uses Python, however it also uses the Kivy framework which is similar to Python.

Is the program USER FRIENDLY and largely error free?

This program is user friendly as there are no complex controls that can make the simulation quite hard and can create a bad experience for the user. Also, as the instructions are very clear, the user can easily play the simulation.
There were no observed errors during the simulation demonstration (during the video).

Include with your Computer Program, a brief written explanation giving:

• the aim of the program

• what the program does
• the intended audience for the program
• how to start/run the program (instructions)
• Explanation of the Scientific content upon which your game is based
• Web link to a copy of your game. See page 23 for how to name your file! (Dropbox, Google Docs, Microsoft One Drive, etc)
• a list of references used, in the correct format (refer to page 23)

See the MecClearen report.

The written explanation should be about 1 A4 page, presented in a paper manila folder (not plastic) with a copy of the completed face sheet firmly attached.

The written explanation is about 1 page.

Acknowledgements and References - Make sure you include a list of people who gave you help/advice and outline the ways they helped you.

See the MecClearen report, third page.

Your simulation/game should run for less than 5 minutes.

Given that the user has moderately good tactics, this simulation can definitely run under 5 minutes.