Space Invaders

**Task 2 – P1.2**

***Explain how different screen sizes are catered for using the Unity game engine, with reference to the ScreenToWorldPoint function.***

Since there are various screen sizes, from LCD Monitors to hand held devices, developers wouldn’t know the correct screen size to output their game to. One has to understand however, the difference between the world space and the screen space of how Unity works. World space, being measured in points, has the co-ordinates 0,0 at the center of the screen and the borders can be calculated with normal numbers such as 4,13,-13,17 and so on. The screen space however, is actually measure in pixels and it always varies depending on the device. This can vary from 640 x 840 (or smaller) till Full HD devices, 1920 x 1080 or higher.

However, to alter any confusion and to make it easy for developers, Unity has a function named *ScreenToWorldPoint* which changes the co-ordinates of the screen into world co-ordinates, making it possible to vary in screen sizes, irrelevant whether they’re hand held ones or TVs.

**WORLD SPACE in Points SCREEN SPACE in Pixels**

**X,Y depending on screen size**

**0,0**

**0,0**

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