[](https://www.knowitallninja.com/)Hardware’s Effect on Game Development 2

# Task 1

Developing video games for mobile can be heavily complicated by the different size, size ratio & resolution of all the different types of mobile devices.

Using the internet research some of the ways in which we can create mobile games for different screen sizes and resolutions. Summarise your findings below.

\_When creating games, different mobile devices will not be able to run these games, and slightly more powerful mobile devices will only just be able to play them, but on a really low resolution, and the reason why is so that the user doesn’t experience extreme spikes in their framerates, and then you have the latest mobile devices with the most powerful processors (of their type) which are able to run the same games in a higher speculation than the other devices, high resolution and a consistently high framerate (and this is because the games are designed for these devices’ hardware; simultaneously to PCs, their components are designed in use of them).

Optimization for different screen sizes is a very clever process, in fact, most mobile games allow the user to change where their controls are on the screen so that they are easier to use, especially if you have a larger screen size. Mobile devices also allow users to use a controller as well, which means that users don’t have to worry about the screen size’s controller layout if they just use a controller instead; Developers cleverly use controls that are transparent so the user can still see behind them and sometimes, if the user is idle (or using a controller) the on-screen controls will go invisible to prevent any blockages of the actual gameplay.

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# Task 2

There are a huge variety of different types of input devices used in modern video games. Many of these are for increased immersion, while some are just because they’re easier to use for certain types of video game.

Below are some specialist input devices that are used in video games. Identify the benefits of these types of devices to gamers, and therefore why you as a developer should take advantage of them.

|  |  |
| --- | --- |
| Input Device | Benefits |
| Touch Screen | **Quicker interactivity when having to use a mouse like feature (over a controller)** |
| Motion Sensor (e.g. Kinect) | **Full interactive characters as it can copy your actual movement to in-game movement.** |
| Motion Controllers (e.g. Oculus Touch) | **Interactive touch in game, able to move arms and interact better with items and objects.** |
| Steering Wheel |  |

# Task 3

(a) People are starting to use their 4G mobile broadband connections for online multiplayer gaming. In the future we’ll see 5G connections which could have a huge impact on mobile gaming, especially mobile online multiplayer.

Read the article linked below from the website APPLovin and summarise the impact 5G connections may have on gaming.

<https://blog.applovin.com/future-of-mobile-games-part2/>

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# Task 4

Developing for virtual reality has certain complexities to it. The article from Gamasutra linked below discusses some of these issues.

https://www.gamasutra.com/view/news/198603/The\_biggest\_challenges\_for\_VR\_game\_developers\_straight\_from\_Oculus.php

Read this article and briefly explain the three issues they identify below:

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