UDC 004.92
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VIRTUAL REALITY HEAD-MOUNTED DISPLAY OCULUS RIFT

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УДК 004.92
Радчук М. – ст. гр. СН-21
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ШОЛОМ ВІРТУАЛЬНОЇ РЕАЛЬНОСТІ OCULUS RIFT
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Ключові слова: віртуальна реальність, комплект розробника, клієнтська версія, вирізана сцена, набір засобів розробки, відеошлем.

Keywords: virtual reality, developer kit, consumer version, cutscene, software development kit, head-mounted display.

The game industry is developing very fast nowadays. So every year there are more and more new products being introduced in the game world. One of them is a new virtual reality head-mounted display Oculus Rift.

Palmer Luckey, the founder of Oculus, developed the idea of creating a new head-mounted display that was both more effective and inexpensive for gamers. Then he started to work on his project and initiated a very successful campaign on Kickstarter. Now his project is only in developer version, but many people have already tried it and report the feeling of reality that it gives them. Company also plans to introduce a consumer version in the nearest future.

The latest version of the Rift developer kit uses a 7-inch (18 cm) AMOLED screen with a 960×1080 per eye resolution. It features head positional tracking to react to all of your head moves. It uses a combination of 3-axis gyros, accelerometers, and magnetometers, which make it capable of absolute (relative to Earth) head orientation tracking without drift. It also has a 3D function to make the things more realistic. The fold-down headphones create 3D positional sound. The weight of the headset is approximately 379 g that is really incredible regarding its functionality and great possibilities.

Oculus has produced a software development kit (SDK) to assist developers with integrating the Oculus Rift into their games. The SDK includes code, samples and documentation. Since its introduction, many developers have been working on integration. Therefore now there are many games, such as Team Fortress 2 (the first game for Oculus Rift), Left 4 Dead, Hawken, Skyrim, that are already compatible with it.

Besides pros the Oculus Rift also has some cons. Many existing games do not translate well to virtual reality (VR) due to features such as HUD, cutscenes, menus, third person sections, fast movement speeds, not being able to see one's own body etc. On the other hand, using the display may cause motion sickness for some gamers. This device is only at the development stage, so not many people can try it already. And it won't be cheap.