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Designing games in Virtual Reality: Introduction and basic concepts

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Statement of the Problem: The traditional game design rules and guidelines do not work when creating content for the Virtual Reality platform. Due to the limitations of the hardware, some specifics of the new platform (the image resolution, the weight of the equipment) and immaturity of the current game design and development tools, the developers face a new type of problems and challenges when have to create content for the Virtual reality platform. Another very common problem experienced from both users and developers of which especially the second have to be very aware of and try to limit it as much as possible is the feeling of dizziness (sickly side effects) after several minutes of play time, also known as vection– several solutions to this problem will be addressed and proposed in the presentation. The importance of the sound effects and the user interface and general user experience are crucial for a deep, satisfactory and engaging interaction with the modern VR headsets. Combined with the need for a stable and permanent frame rate above 90 frames per second this creates the need for a multidisciplinary team made up of great professionals when a VR game is being developed. In the presentation will be discussed different approaches when a new Virtual Reality game is being designed and developed, some example solutions of the problems listed above will be proposed and real-life examples will be proposed. Those examples are based on the development of the SUNWALKER VR award-winning game (Winner of the Best In Play award at the Game Developers Conference 2018). The purpose of this presentation is to raise awareness and explain what to expect when entering the world of game development in Virtual Reality and the explanations will be backed up with examples from actual solutions that occurred during the development life in Hack and Paint– a distributed VR game studio.

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