Construction of 3D Animation Film 'On the Stone Pillar'

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***Abstract*—This thesis presents the construction of a 3D animation film titled 'On the Stone Pillar'. The author describes the process of creating the film, including the development of the script, character design, and animation. The film features a journey of two robots searching for energy in a desert, with various challenges and climactic moments. The author also discusses the theoretical background of 3D animation and the tools used, such as Blender and Substance Painter. The final product is a 3D animation film titled 'On the Stone Pillar', featuring various scenes, such as the robots' journey, their struggle for energy, and climactic moments. The author evaluates the film's script, visual and character design, sound, and animation quality, noting that the characters' movements and camera angles could be improved.**

***Index Terms*—3D animation, Blender, Substance Painter, character design, animation, film production**

I. Introduction

The thesis provides an overview of the history and development of animation, focusing on both international and Vietnamese contexts. It explains the process of creating a 3D animation film, including scriptwriting, character design, and animation techniques. The author also discusses the tools used, such as Blender and Substance Painter. The film 'On the Stone Pillar' is a 3D animation project that aims to explore the journey of two robots in a desert, facing various challenges and climactic moments. The author emphasizes the importance of understanding the theoretical background of 3D animation and the practical tools required for the project [1]. Published books on the methods and subject of this project provide context for this English summary [5], [6]. Published articles on the methods and subject of this project provide context for this English summary [7], [8].

II. Methods

The author uses Blender for modeling and texturing, Substance Painter for texturing, and Adobe Premiere for editing. The process involves creating 3D models, rigging, animation, and rendering. The film features a journey of two robots searching for energy in a desert, with various challenges and climactic moments. The author describes the step-by-step process of creating the film, from scriptwriting to final rendering. The use of Blender and Substance Painter is crucial for the project, as they provide the necessary tools for modeling, texturing, and animation [1].

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III. Results

The final product is a 3D animation film titled 'On the Stone Pillar'. The film includes various scenes, such as the robots' journey, their struggle for energy, and climactic moments. The author evaluates the film's script, visual and character design, sound, and animation quality. The film's script is evaluated for its educational value and character development. The author notes that the film meets the initial requirements and provides valuable experience in 3D animation. However, the author acknowledges that the characters' movements and camera angles could be improved [1].

IV. Discussion

The film's script is evaluated for its educational value and character development. The author notes that the film meets the initial requirements and provides valuable experience in 3D animation. However, the author acknowledges that the characters' movements and camera angles could be improved. The author suggests that future projects should focus on refining these aspects to enhance the overall quality of the animation. The project has provided the author with a solid foundation in 3D animation techniques and tools, which will be beneficial for future endeavors [1].

V. Conclusion

The author concludes that the project has provided valuable experience in 3D animation, including the use of software and the creation of a 3D animation film. The author plans to continue learning and improving in the future. The project has laid the groundwork for the author to explore more complex and detailed animations in the future. The author expresses a commitment to further developing their skills in 3D animation and hopes to contribute to the growth of the animation industry in Vietnam [1].

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